SAMSUNG

User Manual

ST500/ST510

This user manual includes detailed usage instructions for your camera. Please read this manual thoroughly.

Click a topic

- Common questions
- Quick reference
- Contents
- Basic functions
- Extended functions
- Shooting options
- Playback/Editing
- Appendixes
- Index

Health and safety information

Always comply with the following precautions and usage tips to avoid dangerous situations and ensure peak performance of your camera.

Warning—situations that could cause injury to yourself or others

Caution—situations that could cause damage to your camera or other equipment

Note—notes, usage tips, or additional information

Safety warnings

Do not use your camera near flammable or explosive gases and liquids

Do not use your camera near fuels, combustibles, or flammable chemicals. Do not store or carry flammable liquids, gases, or explosive materials in the same compartment as the camera or its accessories.

Keep your camera away from small children and pets

Keep your camera and all accessories out of the reach of small children and animals. Small parts may cause choking or serious injury if swallowed. Moving parts and accessories may present physical dangers as well.

Prevent damage to subjects' eyesight

Do not use the flash in close proximity (closer than 1 m/3 ft) to people or animals. Using the flash too close to your subject's eyes can cause temporary or permanent damage.

Handle and dispose of batteries and chargers with care

- Use only Samsung-approved batteries and chargers. Incompatible batteries and chargers can cause serious injuries or damage to your camera.
- Never dispose of batteries in a fire. Follow all local regulations when disposing of used batteries.
- Never place batteries or cameras on or in heating devices, such as microwave ovens, stoves, or radiators. Batteries may explode when overheated.

Safety precautions

Handle and store your camera carefully and sensibly

- Do not allow your camera to get wet—liquids can cause serious damage. Do not handle your camera with wet hands. Water damage to your camera can void your manufacturer's warranty.

- Do not expose the camera to direct sunlight or high temperatures for an extended period of time. Prolonged exposure to sunlight or extreme temperatures can cause permanent damage to your camera's internal components.
- Avoid using or storing your camera in dusty, dirty, humid, or poorly-ventilated areas to prevent damage to moving parts and internal components.
- Remove the batteries from your camera when storing it for an extended period of time. Installed batteries may leak or corrode over time and cause serious damage to your camera.
- Protect your camera from sand and dirt when using it on beaches or in other similar areas.
- Protect your camera and monitor from impact, rough handling, and excessive vibration to avoid serious damage.
- Exercise caution when connecting cables or adapters and installing batteries and memory cards. Forcing the connectors, improperly connecting cables, or improperly installing batteries and memory cards can damage ports, connectors, and accessories.
- Do not insert foreign objects into any of your camera's compartments, slots, or access points. Damage due to improper use may not be covered by your warranty.

Protect batteries, chargers, and memory cards from damage

- Avoid exposing batteries or memory cards to very cold or very hot temperatures (below 0º C/32º F or above 40º C/104º F). Extreme temperatures can reduce the charging capacity of your batteries and can cause memory cards to malfunction.
- Prevent batteries from making contact with metal objects, as this can create a connection between the + and – terminals of your battery and lead to temporary or permanent battery damage.
- Prevent memory cards from making contact with liquids, dirt, or foreign substances. If dirty, wipe the memory card clean with a soft cloth before inserting in your camera.
- Do not allow liquids, dirt, or foreign substances to come in contact with the memory card slot. Doing so may cause the camera to malfunction.
- Turn off the camera when inserting or removing the memory card.
- Do not bend, drop, or subject memory cards to heavy impact or pressure.
- Do not use memory cards that have been formatted by other cameras or by a computer. Reformat the memory card with your camera.
- Never use a damaged charger, battery, or memory card.

Use only Samsung-approved accessories

Using incompatible accessories may damage your camera, cause injury, or void your warranty.

Protect your camera's lens

- Do not expose the lens to direct sunlight, as this may discolour the image sensor or cause it to malfunction.
- Protect your lens from fingerprints and scratches. Clean your lens with a soft, clean, debris-free lens cloth.

Important usage information

Allow only qualified personnel to service your camera

Do not allow unqualified personnel to service the camera or attempt to service the camera yourself. Any damage that results from unqualified service is not covered by your warranty.

Ensure maximum battery and charger life

- Overcharging batteries may shorten battery life. After charging is finished, disconnect the cable from your camera.
- Over time, unused batteries will discharge and must be recharged before use.
- Disconnect chargers from power sources when not in use.
- Use batteries only for their intended purpose.

Exercise caution when using the camera in humid environments

When transferring the camera from a cold environment to a warm and humid one, condensation can form on the delicate electronic circuitry and memory card. In this situation, wait for at least 1 hour until all moisture has evaporated before using the camera.

Check that the camera is operating properly before use

The manufacturer takes no responsibility for any loss of files or damage that may result from camera malfunction or improper use.

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Camera specifications or contents of this manual may be changed without prior notice due to upgrade of camera functions.

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Organisation of the user manual

Basic functions 11

Learn about your camera's layout, icons, and basic functions for shooting.

Extended functions 30

Learn how to take a photo by selecting a mode and how to record a video or voice memo.

Shooting options 40

Learn about the options you can set in Shooting mode.

Playback/Editing 62

Learn how to play back photos, videos, or voice memos and edit photos or videos. Also, learn how to connect your camera to your photo printer, TV, or HDTV.

Appendixes 88

Refer to settings, error messages, specifications, and maintenance tips.

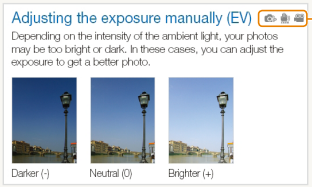
Indications used in this manual

Shooting mode	Indication
Smart Auto	
Auto	
Program	
Scene	SCENE
DUAL IS	
Movie	

Shooting mode icons

These icons indicate that a function is available in the corresponding modes. The SCENE mode may not support functions for all scenes.

e.g.)


Adjusting the exposure manually (EV)
Depending on the intensity of the ambient light, your photos may be too bright or dark. In these cases, you can adjust the exposure to get a better photo.
Darker (-)
Neutral (0)
Brighter (+)

Available in the Program, DUAL IS, and Movie modes

Icons used in this manual

Icon	Function
	Additional information
	Safety warnings and precautions
[ ]	Camera buttons; for example: [**Shutter**] (represents the shutter button)
( )	Page number of related information
→	The order of options or menus you must select to perform a step; for example: Select ❯ → F (represents Select ❯, and then F)
*	Annotation

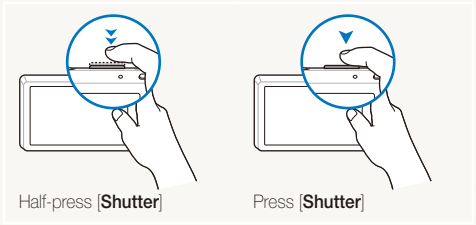
Abbreviations used in this manual

Abbreviation	Definition
ACB	Auto Contrast Balance
AEB	Auto Exposure Bracket
AF	Auto Focus
DIS	Digital Image Stabilisation
DPOF	Digital Print Order Format
EV	Exposure Value
OIS	Optical Image Stabilisation
WB	White Balance

Expressions used in this manual

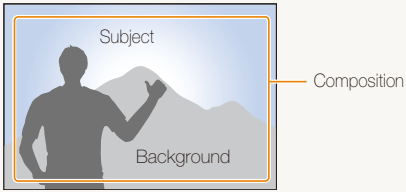
Pressing the shutter

- Half-press [**Shutter**]: press the shutter halfway down
- Press [**Shutter**]: press the shutter all the way down



Subject, background, and composition

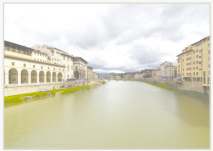
- **Subject**: the main object of a scene, such as a person, animal, or still life
- **Background**: the objects around the subject
- **Composition**: the combination of a subject and background



Exposure (Brightness)

The amount of light that enters your camera determines the exposure. You can alter the exposure with shutter speed, aperture value, and ISO speed. By altering the exposure, your photos will be darker or lighter.

Normal exposure


Overexposure (too bright)

Common questions

You can get answers to common questions. Solve problems easily by setting shooting options.

The subject's eyes appear red.	This is caused by a reflection from the camera flash. • Set the flash option to **Red-eye** or **Red-eye Fix**. (p. 45) • If the photo has already been taken, select **Red-eye Fix** in the edit menu. (p. 77)
Photos have dust spots.	Dust particles floating in the air may be captured in photos when using the flash. • Turn off the flash or avoid taking photos in a dusty place. • Set ISO speed options. (p. 46)
Photos are blurred.	This may be caused by taking photos in low light conditions or holding the camera incorrectly. • Use the mode. (p. 36) • Press [**Shutter**] halfway down to make sure the subject is focused. (p. 28)
Photos are blurred when shooting at night.	As the camera tries to let in more light, the shutter speed slows. This can make it difficult to steady the camera and may result in camera shake. • Turn on the flash. (p. 45) • Select **Night** in the SCENE mode. (p. 35) • Set ISO speed options. (p. 46) • Use a tripod to prevent your camera from shaking.
Subjects come out too dark because of backlighting.	When the light source is behind the subject or when there is a high contrast between the light and dark areas, the subject may come out shaded. • Avoid shooting in front of the sun. • Select **Backlight** in the SCENE mode. (p. 32) • Set the flash option to **Fill in**. (p. 45) • Set the Auto Contrast Balance (**ACB**) option. (p. 55) • Adjust the exposure. (p. 54) • Set the metering option to **[•] Spot** if a bright subject is in the centre of the frame. (p. 56)

Quick reference

Taking photos of people

- SCENE mode > Beauty Shot, Portrait, Children ▶ 32
- Red-eye, Red-eye Fix (to prevent or correct red-eye) ▶ 45
- Face Detection ▶ 50

Taking photos at night or in the dark

- SCENE mode > Night, Dawn, Fireworks ▶ 32
- Flash options ▶ 45
- ISO speed (to adjust the sensitivity to light) ▶ 46

Taking action photos

- Continuous, Motion Capture ▶ 59

Taking photos of text, insects, or flowers

- SCENE mode > Close Up, Text ▶ 32
- Macro, Auto Macro, Super Macro (to take close-up photos) ▶ 47
- White Balance (to change the colour tone) ▶ 57

Adjusting the exposure (brightness)

- ISO speed (to adjust the sensitivity to light) ▶ 46
- EV (to adjust exposure) ▶ 54
- ACB (to compensate for subjects against bright backgrounds) ▶ 55
- Metering ▶ 56
- AEB (to take 3 photos of the same scene with different exposures) ▶ 59

Applying a different effect

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- Image adjustment (to adjust saturation, sharpness, or contrast) ▶ 61

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Basic functions

Learn about your camera's layout, icons, and basic functions for shooting.

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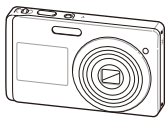
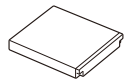
Unpacking

Check your product box for the following items.

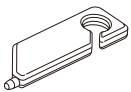


Camera

AC adapter/
USB cable

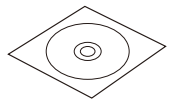


Rechargeable battery

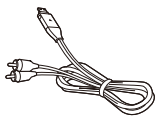


Touch pen

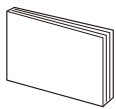
Strap



User Manual CD-ROM



A/V cable



Quick Start Manual

Optional accessories

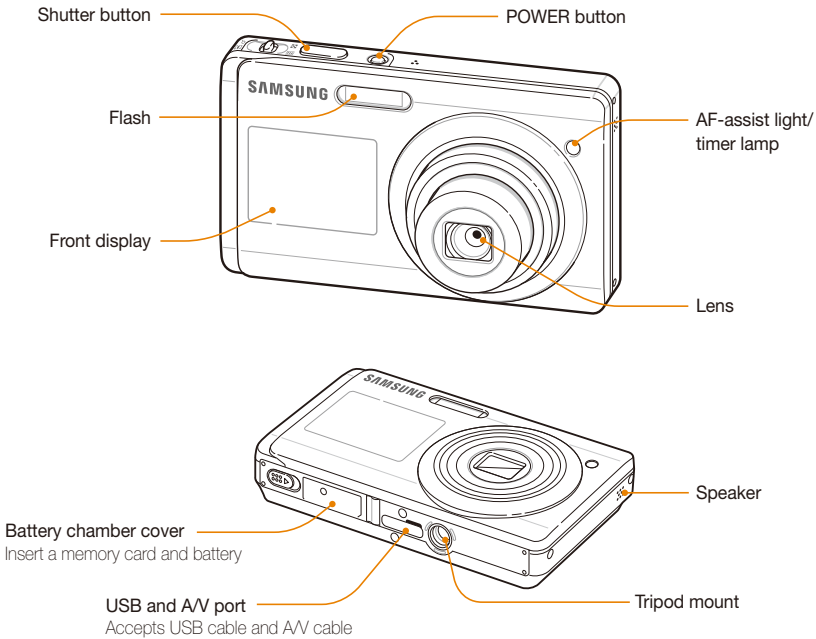
Camera case

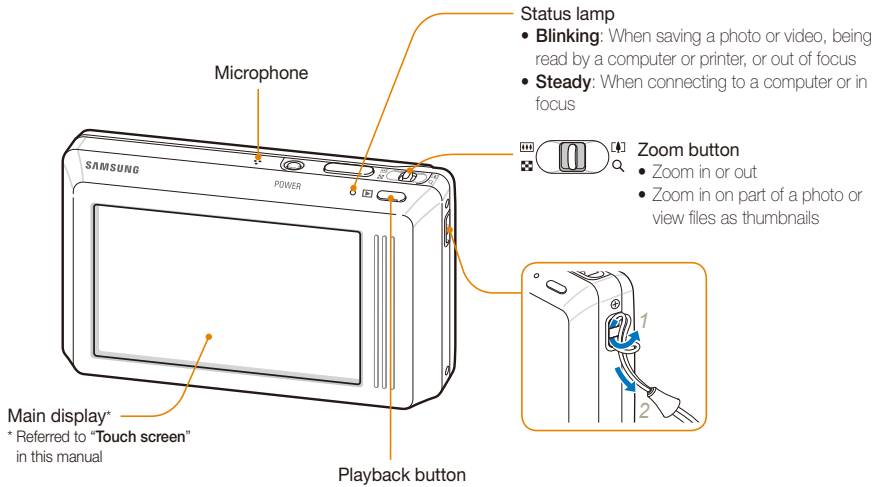
Memory card
(microSD™)

The illustrations may differ from your actual items.

Camera layout

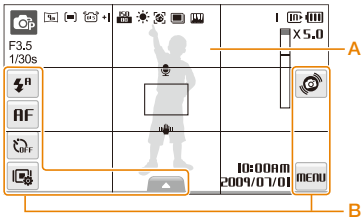
Before you start, familiarise yourself with your camera's parts and their functions.




Status lamp
• Blinking: When saving a photo or video, being read by a computer or printer, or out of focus
• Steady: When connecting to a computer or in focus
Microphone
Zoom button
• Zoom in or out
• Zoom in on part of a photo or view files as thumbnails
SAMSUNG
POWER
1
2
Main display*
* Referred to "Touch screen" in this manual
Playback button

Icons

The icons displayed will change according to the mode you select or the options you set.



A. Status icons

Icon	Description
	Shooting mode
F3.5 1/30s	Aperture and shutter speed
	Photo resolution
	Video resolution
	Metering
	Optical Image Stabilisation (OIS)
	Frame rate
	Exposure value
	ISO speed
	White balance
	Face detection
	Burst mode
	Image adjustment (sharpness, contrast, saturation)

Icon	Description
	Photo styles
	Available number of photos
00:01:00	Available recording time
	Internal memory
	Memory card inserted
	• : Fully charged • : Partially charged • : Charging needed
X5.0	Zoom ratio
	Voice memo
	Auto focus frame
	Camera shake
	Option set 1 (of 3)
10:00 AM 2009/07/01	Current date and time
	Grid lines

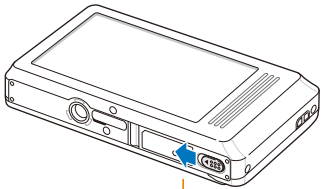
B. Option icons (touch)

Icon	Description
	Flash option
AF	Auto focus option
	Timer option

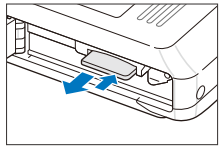
Icon	Description
	Display type
	Motion recognition
MENU	Shooting options and settings menu
	Image setting options • : Exposure value • : White balance • : ISO speed • : Face tone • : Face retouch • : Focus area option • : Face detection option • : Photo resolution • : Video resolution • : Photo quality • : Frame rate • : Exposure with ACB • : Metering option • : Burst type • : Photo styles • : Image adjustment (sharpness, contrast, saturation) • LT: Long time shutter • : Optical Image Stabilisation (OIS) • : Audio recording • : Another row of options

Inserting the battery and memory card

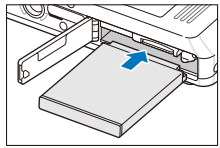
Learn to insert the battery and an optional microSD™ memory card into the camera.

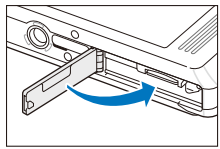


Insert a memory card with the gold-coloured contacts facing up.

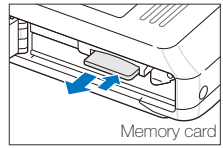


Insert the battery with the Samsung logo facing up.

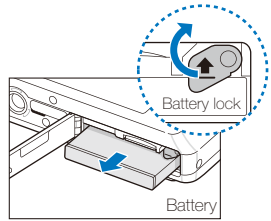




Removing the battery and memory card



Push gently until the card disengages from the camera and then pull it out of the slot.



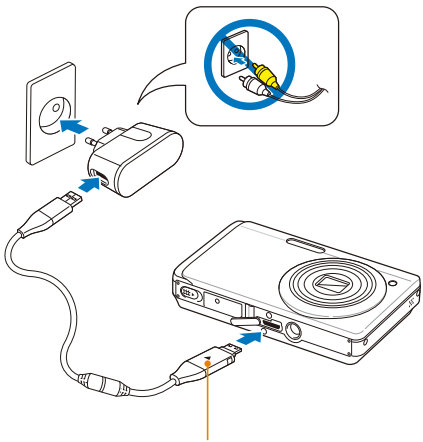
Push the lock up to release the battery.

The internal memory can be used as a temporary storage device when the memory card is not inserted.

Charging the battery and turning your camera on

Charging the battery

Attach the USB cable to the AC adapter and then plug the end of cable with the indicator light into your camera.



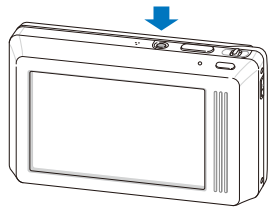
Indicator light

- **Red**: Charging
- **Green**: Fully charged

Turning on your camera

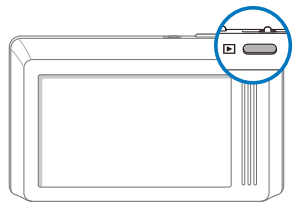
Press [**POWER**] to turn your camera on or off.

- The initial setup screen appears when you turn on the camera for the first time. (p. 18)



Turning on your camera in Playback mode

Press [▶]. The camera turns on and accesses Playback mode immediately.

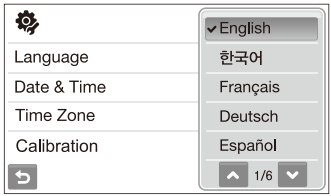


Press and hold [▶] to mute camera sounds.

Performing the initial setup

The initial setup screen appears to allow you to configure the camera's basic settings.

1 Select **Language**.

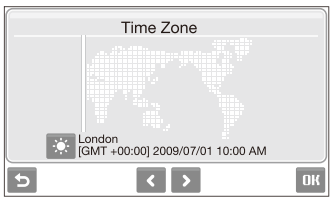


2 Select a language.

3 Select **Time Zone** (Time Zone).

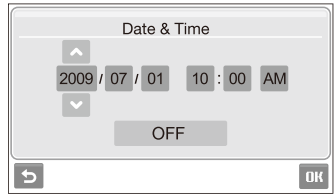
4 Select a time zone and select **OK**.

- To set the daylight-saving time, select ☀.



5 Select **Date & Time** (Date & Time).

6 Set the date and time, select a date format, and select **OK**.



7 Select **Calibration**.

8 Tap the target on the screen with your touch pen.

Tap directly in the centre of the target for optimal performance.

9 Select **OK** to switch to the Shooting mode.

Using the touch screen

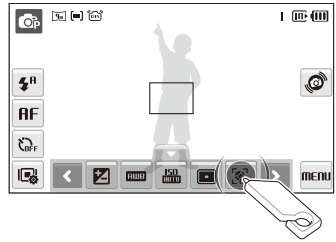
Learn basic actions to use the touch screen. Use the supplied touch pen to touch or drag on the screen.

Do not use other sharp objects, such as pens or pencils, to touch the screen. Doing so may damage the screen.

- When you touch or drag on the screen, discolourations will occur. It is not a malfunction but a characteristic of the touch screen. Touch or drag lightly to reduce these annoying effects.
- The touch screen may not recognise your touches correctly when:
  - you touch multiple items at the same time
  - you use the camera in high humidity environments
  - you use the camera with an LCD protection film or another LCD accessory
- If you touch the screen with your finger, the screen may not recognise your input.
- If you perform no operations for few seconds, the screen will dim to save battery life.

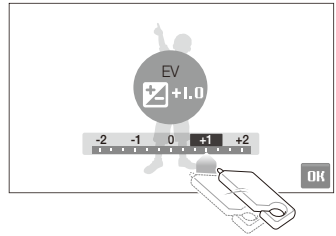
Touching

Touch an icon to select a menu or option.



Dragging

Drag left or right to scroll horizontally.



Using gestures

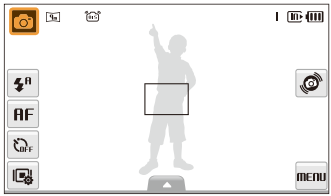
Perform certain functions by drawing commands on the touch screen.

Gesture	Description
	Draw a horizontal bar to right or left to view the next or previous file.
	Draw an X to delete a photo.
	Draw a circle to rotate a photo.
	Draw a diagonal to move the enlarged photo.

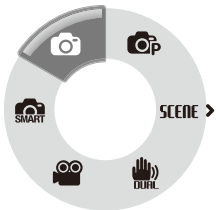
Selecting a shooting mode

Learn how to select a shooting mode. Your camera provides you with various modes for shooting.

1 Select the mode icon.



2 Select a mode.



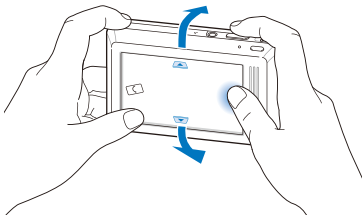
Mode	Description
SMART	**Smart Auto**: Take a photo by letting the camera select a scene mode as it detects. (p. 31)
	Auto: Take a photo quickly and easily with minimal settings. (p. 25)
P	**Program**: Take a photo by setting options. (p. 36)
SCENE	**Scene**: Take a photo with options preset for a specific scene. (p. 32)
DUAL	**DUAL IS**: Take a photo with options suitable for reducing camera shake. (p. 36)
	Movie: Record a video. (p. 37)

Selecting a shooting mode using motion recognition

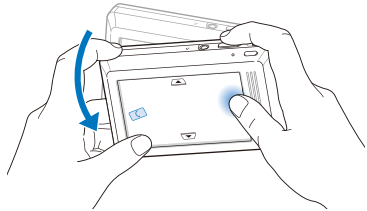
Your camera features a built-in motion sensor that allows you to quickly switch the shooting mode by tilting the camera.

In Shooting mode, tilt the camera while touching and holding .

Access the Movie mode (p. 37)

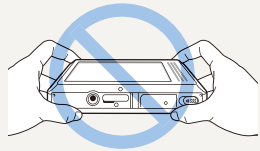


Access the Program mode (p. 36)



Access the Smart Auto mode (p. 31)

Motion recognition may not work well if you hold the camera parallel to the ground, as shown below.



Setting the dual displays and sound

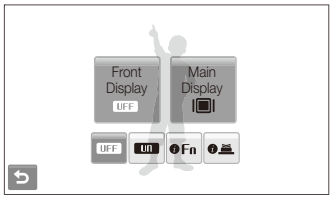
Learn how to change the basic settings for the front display and touch screen according to your preferences.

Setting the front display

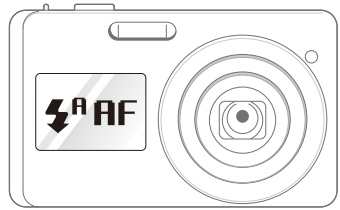
Set the front display to display shooting options, such as macro or flash options. You can also inform your subject to pose for a photo.

1 In Shooting mode, select → **Front Display**.

2 Select an option.



Option	Description
OFF	**Off**: Deactivate the display of the shutter or function information.
ON	**On**: Activate the front display
Fn	**Function Info**: Display the flash and macro options.
	Shutter Info: Display graphics for your subject to inform your subject to pose for a photo when you half-press [**Shutter**].

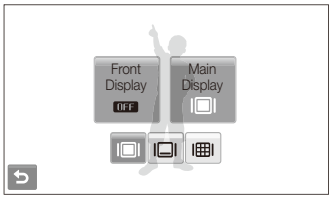


- Your camera will not remember your option setting once you turn off the camera. Set options for the front display when you turn on your camera.
- If the camera is subjected to a strong impact, the front display may turn on or off.
- The front display will not be available in the and modes or when you connect the camera to a TV.
- When you set front display or timer options, the front display will remain active.
- After tapping the front display or setting front display or timer options, the date and time will not be shown.
- The front display will help you to take photos conveniently when:
  - you take a self-portrait shot (p. 37)
  - you use the timer options (p. 43)
  - you take photos of children (p. 34)
- When using camera buttons or touch icons, the front display will not be active.
- When you use the camera in brightly lit or sunny areas, you may not be able to see the front display clearly.
- If you take photos using the front display, the actual photo may appear slightly different than what you compose.

Setting the display type for the touch screen

1 In Shooting mode, select → **Main Display**.
(In Playback mode, select .)

2 Select an option.



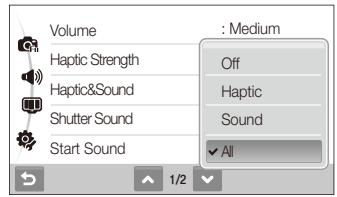
Option	Description
	Full: Display the name of an option when you select an icon.
	Basic: Display icons without the name of an option. This option is available only in Playback mode.
	Hide: Hide icons on the screen if you perform no operations for 3 seconds (touch the screen to display icons again).
	Guide Line: Display grid lines. The grid lines are helpful for getting the photo aligned with a surface, such as the horizon or the edges of buildings. This option is available only in Shooting mode.

Setting the touch vibration or sound

Set whether your camera vibrates or emits a specified sound when you touch on the screen.

1 In Shooting or Playback mode, select MENU.

2 Select → **Haptic&Sound**.



3 Select an option.

Option	Description
Off	The camera will neither vibrate nor sound.
Haptic	The camera will vibrate.
Sound	The camera will sound.
All	The camera will vibrate and sound simultaneously.

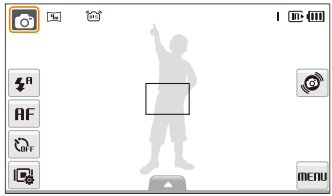
4 Select to return to the previous mode.

Taking photos

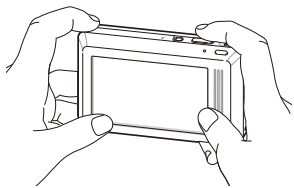
Learn basic actions to take photos easily and quickly in the Auto mode.

1 Make sure that the camera is in the mode (Auto), the camera's default shooting mode.

- If not, select the mode icon → .

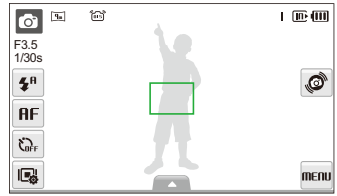


2 Align your subject in the frame.



3 Half-press [**Shutter**] to focus.

- A green frame means the subject in focus.



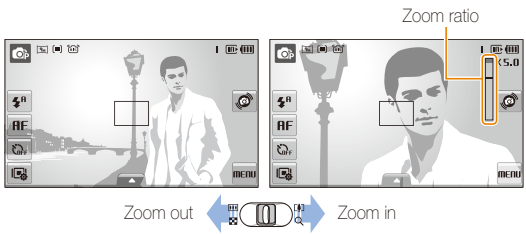
4 Press [**Shutter**] to take a photo.

See page 28 for tips to get clearer photos.

Zooming

You can shoot close-up photos by adjusting the zoom. Your camera has a 4.6X optical zoom and 5X digital zoom. By using both, you can zoom in up to 23 times.

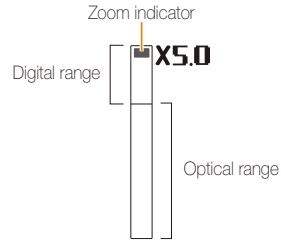
Push [**Zoom**] right to zoom in on your subject. Push [**Zoom**] left to zoom out.



The zoom ratio available for videos differs.

Digital zoom

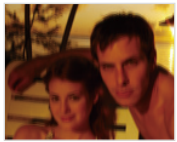
If the zoom indicator is in the digital range, your camera is using the digital zoom. The picture quality may deteriorate when you use the digital zoom.



- The digital zoom is not available when using SMART, DUAL, SCENE (in some scenes), and modes and when used with **Face Detection**.
- It may take longer to save a photo when using the digital zoom.

Reducing camera shake (OIS)

Reduce camera shake optically in Shooting mode.



Before correction

After correction

1 In Shooting mode, select ▲ → ❯ (once or twice) → OIS.

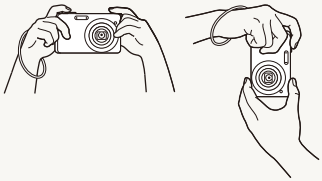
2 Select an option.

Option	Description
OIS OFF	**Off**: Deactivate the OIS function.
OIS	**On**: Activate the OIS function.

- OIS may not function properly when:
  - you move your camera to follow a moving subject
  - you use digital zoom
  - there is too much camera shake
  - the shutter speed is slow (e.g., when you select **Night** in the SCENE mode)
  - the battery is low
  - you take a close-up shot
- If you use the OIS function with a tripod, your images may be blurred by the vibration of the OIS sensor. Deactivate the OIS function when you use a tripod.
- If the camera is impacted, the display will be blurry. In this case, turn off the camera and turn it on again to use the OIS function correctly.

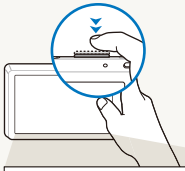
Tips for getting a clearer photo

Holding your camera correctly

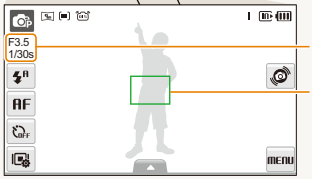


Make sure nothing is blocking the lens.

Half-pressing the shutter button



Half-press [**Shutter**] and adjust the focus. Focus and exposure will be adjusted automatically.



The aperture value and shutter speed are automatically set.

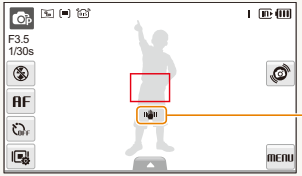
Focus frame

- Press [**Shutter**] to take the photo if displayed in green.
- Change the frame and half-press [**Shutter**] again if displayed in red.

Reducing camera shake

- Set the Optical Image Stabilisation option to reduce camera shake optically. (p. 27)
- Select the mode to reduce camera shake both optically and digitally. (p. 36)

When is displayed



When shooting in the dark, avoid setting the flash option to **Slow Sync** or **Off**. The aperture remains open longer and it may be harder to hold the camera still.

- Use a tripod or set the flash option to **Fill in**. (p. 45)
- Set ISO speed options. (p. 46)

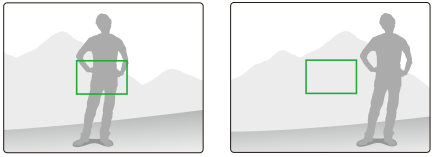
Preventing your subject from being out of focus

It may be difficult to get your subject in focus when:

- there is little contrast between the subject and background (When your subject is wearing a colour of clothing that is similar to the background)
- the light source behind the subject is too bright
- the subject is shiny
- the subject includes horizontal patterns, such as blinds
- the subject is not positioned in the centre of the frame

Use the focus lock

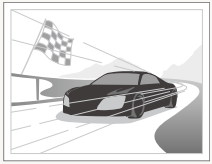
Half-press [**Shutter**] to focus. When the subject is in focus, you can reposition the frame to change the composition. When you are ready, press [**Shutter**] to take your photo.



- When you take photos in low light

Turn on the flash. (p. 45)

- When subjects are moving fast



Use the continuous or motion capture function. (p. 59)

Extended functions

Learn how to take a photo by selecting a mode and how to record a video or voice memo.

Shooting modes 31
Using the Smart Auto mode 31
Using the Scene mode 32
Using the Beauty Shot mode 33
Using the frame guide 34
Using the Children mode 34
Adjusting the exposure in the Night mode 35
Using the DUAL IS mode 36
Using the Program mode 36
Taking a self-portrait shot 37
Recording a video 37
Recording voice memos 39
Recording a voice memo 39
Adding a voice memo to a photo 39

Shooting modes

Take photos or record videos by selecting the best shooting mode for the conditions.

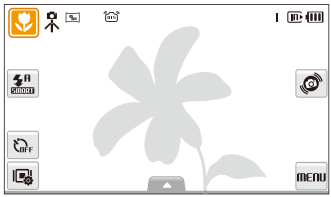
Using the Smart Auto mode

In this mode, your camera automatically chooses the appropriate camera settings based on a detected type of scene. It will be helpful if you are not familiar with the camera settings for various scenes.

1 In Shooting mode, select → SMART.

2 Align your subject in the frame.

- The camera selects a scene automatically. An appropriate mode icon will appear at the top left of the screen.



Icon	Description
	Appears when taking photos of landscapes.
	Appears when taking photos of bright backgrounds.

Icon	Description
	Appears when taking photos of landscapes at night. This is available only when the flash is off.
	Appears when taking portraits at night.
	Appears when taking photos of landscapes with backlighting.
	Appears when taking portraits with backlighting.
	Appears when taking portraits.
	Appears when taking close-up photos of objects.
	Appears when taking close-up photos of text.
	Appears when taking photos of sunsets.
	Appears when taking photos of clear skies.
	Appears when taking photos of forested areas.
	Appears when taking close-up photos of colourful subjects.
	Appears when taking close-up portraits of people.
	Appears when the camera and subject are stable for a while.
	Appears when taking photos of actively moving subjects.

3 Half-press [**Shutter**] to focus.

4 Press [**Shutter**] to take the photo.

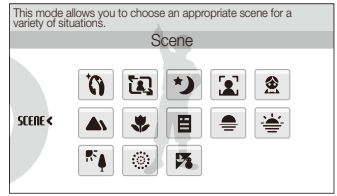
- If the camera does not recognise a proper scene mode, SMART will not change and the default settings will be used.
- Even if there is a face detected, the camera may not select a portrait mode depending on the subject's position or lighting.
- The camera may not select the correct scene depending on shooting environments, such as camera shake, lighting and distance to the subject.
- Even if you use a tripod, the mode may not be detected depending on the subject's movement.

Using the Scene mode

Take a photo with options preset for a specific scene.

1 In Shooting mode, select → SCENE.

2 Select a scene.



- For the Beauty Shot mode, see “Using the Beauty Shot mode” on page 33.
- For the Frame Guide mode, see “Using the frame guide” on page 34.
- For the Night mode, see “Adjusting the exposure in the Night mode” on page 35.
- For the Children mode, see “Using the Children mode” on page 34.

3 Align your subject in the frame and half-press [**Shutter**] to focus.

4 Press [**Shutter**] to take the photo.

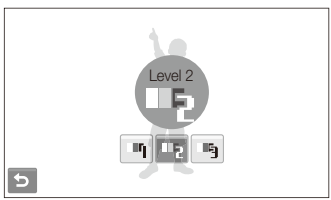
Using the Beauty Shot mode

Take a photo of a person with options to hide facial imperfections.

1 In Shooting mode, select → SCENE → .

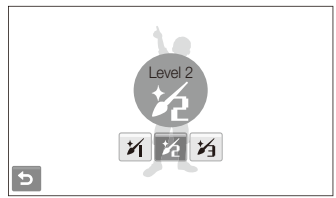
2 To make the subject's skin tone appear lighter (face only), select ▲ → → an option.

- Select a higher setting to make skin tone appear lighter.



3 To hide facial imperfections, select ▲ → → an option.

- Select a higher setting to hide a greater number of imperfections.



4 Align your subject in the frame and half-press [**Shutter**] to focus.

5 Press [**Shutter**] to take the photo.

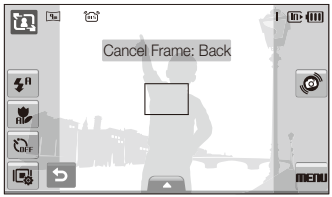
The focus distance will be set to **Auto Macro**.

Using the frame guide

When you want another person to take a photo of you, you can compose the scene with the frame guide feature. The frame guide will help the other person take a photo of you by showing the part of the pre-composed scene.

1 In Shooting mode, select → SCENE → .

2 Align your subject in the frame and press [**Shutter**].
- Transparent guides will appear on the left and right of the frame.



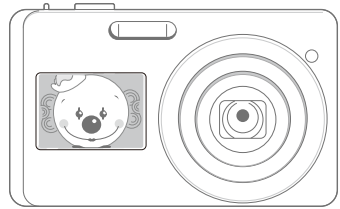
3 Ask another person to take a photo.
- The person must align the subject in the frame by using the guides, and then press [**Shutter**] to take the photo.

4 To cancel the guides, select .

Using the Children mode

In this mode, you can draw children's attention to the camera by showing a short animation on the front display.

1 In Shooting mode, select → SCENE → .
- An animation will play.
- If the front display is turned off, tap the front display to turn it on.



2 Align your subject in the frame and half-press [**Shutter**].

3 Press [**Shutter**] to take the photo.

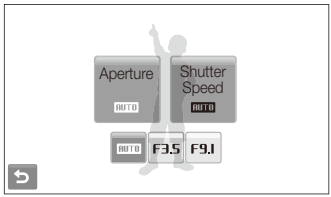
You can download animations from the website.
Visit www.samsung.com or www.samsungcamera.com for more information.

Adjusting the exposure in the Night mode

In the Night mode, you can catch brief flashes of light as curved streaks by extending the exposure. Use a slow shutter speed to extend the time until the shutter closes. Increase the aperture value to prevent overexposure.

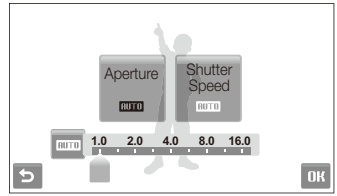
1 In Shooting mode, select → SCENE → .

2 Select ▲ → LT → **Aperture**.



3 Select an option.

4 Select ▲ → LT → **Shutter Speed**.



5 Select a value to adjust the shutter speed and select **OK**.

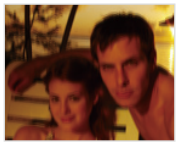
6 Align your subject in the frame and half-press [**Shutter**] to focus.

7 Press [**Shutter**] to take the photo.

Use a tripod to prevent your photos from blurring.

Using the DUAL IS mode

Reduce camera shake and prevent blurred photos with Optical and Digital Image Stabilisation functions.



Before correction

After correction

1 In Shooting mode, select → .

2 Align your subject in the frame and half-press [**Shutter**] to focus.

3 Press [**Shutter**] to take the photo.

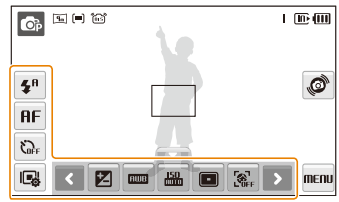
- The digital zoom will not work in this mode.
- The camera will correct photos optically only when you take them with a light source that is brighter than fluorescent light.
- If your subject is moving rapidly, the photo may be blurry.
- Set the Optical Image Stabilisation option to reduce camera shake in different shooting modes. (p. 27)

Using the Program mode

Set various options (except for shutter speed and aperture value) in the Program mode.

1 In Shooting mode, select → .

2 Set options. (For a list of options, refer to “Shooting options.”)



3 Align your subject in the frame and half-press [**Shutter**] to focus.

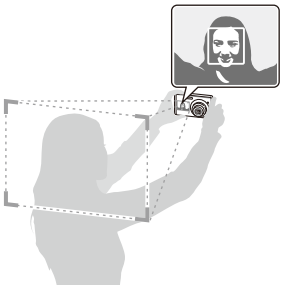
4 Press [**Shutter**] to take the photo.

Taking a self-portrait shot

Take photos of yourself conveniently using the front display.

1 In Shooting mode, tap the front display to turn it on.

- Your camera will detect your face automatically and display a frame to indicate the detected face.
- The camera automatically releases the shutter when it detects a smiling face.



2 Half-press [**Shutter**] to focus.

3 Press [**Shutter**] to take the photo.

4 Half-press [**Shutter**] or select ↶ on the touch screen to take another photo.

- You can use this function when the front display option is set to OFF. (p. 23)
- If you use this function, you cannot set face detection options.
- The focus frame to detect faces will not appear in the shooting mode that does not support face detection options.
- You can tap the front display to turn it on or off.

Recording a video

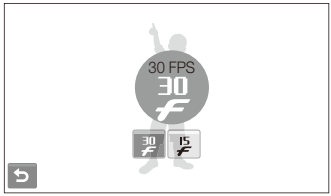
Record videos of up to 20 minutes in length in high definition. The recorded video is saved as an H.264 (MPEG-4.AVC) file.

- H.264 (MPEG-4 part10/AVC) is a high-compression video format established by international standard organisations ISO/IEC and ITU-T.
- When the Optical Image Stabilisation (OIS) is activated, your video may be recorded with the OIS operation sound.

1 In Shooting mode, select 📷 → 🎥.

2 Select ▲ → 30 → a frame rate (the number of frames per second).

- As the number of frames increases, action appears more natural, but the file size is increased.



60 is available only when the video resolution is 320 x 240.

3 Select ▲ → ❯ → 🎙 → a sound option.

Option	Description
🎙	**Off**: Record a video without sound.
🎙	**On**: Record a video with sound. (While you are zooming, sound recording will be interrupted.)

4 Set other options as desired. (For options, refer to "Shooting options.")

5 Press [**Shutter**] to start recording.

6 Press [**Shutter**] again to stop recording.

To pause recording

The camera allows you to pause temporarily while recording a video. With this function, you can record your favourite scenes as a single video.

Select ❙❙ to pause while recording. Select ● to resume.

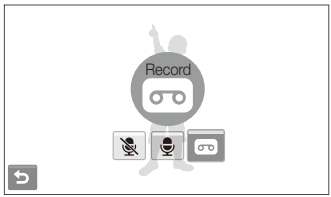
Recording voice memos

Learn how to record a voice memo that you can play back at any time. You can add a voice memo to a photo as a short reminder of shooting conditions.

You will get the best sound quality when recording 40 cm away from the camera.

Recording a voice memo

1 In Shooting mode, select ▲ → ❯ → → .



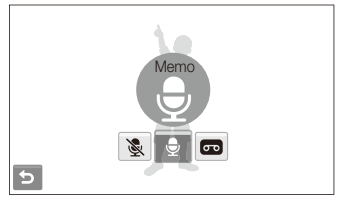
2 Press [**Shutter**] to record.
- Select ❙❙ to pause and ● to resume.
- The available recording time will be displayed on the top of the screen.
- You can record voice memos of up to 10 hours in length.

3 Press [**Shutter**] to stop.

4 Select ⮌ to switch to Shooting mode.

Adding a voice memo to a photo

1 In Shooting mode, select ▲ → ❯ → → .



2 Align your subject in the frame and take a photo.
- You will begin recording a voice memo right after taking the photo.

3 Record a short voice memo (10 seconds maximum).
- Press [**Shutter**] to stop recording a voice memo.

Shooting options

Learn about the options you can set in Shooting mode.

Selecting a resolution and quality 41
Selecting a resolution 41
Selecting image quality 42
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Using the flash 45
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Changing the camera's focus 47
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Selecting a resolution and quality

Learn how to change the image resolution and quality settings.

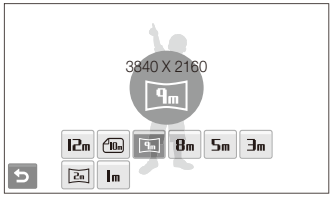
Selecting a resolution

As you increase the resolution, your photo or video will include more pixels, so it can be printed on larger paper or displayed on a larger screen. When you use a high resolution, the file size will also increase.

When taking a photo:

1 In Shooting mode, select ▲ → ❯ → 9m.
(In some modes, select ▲ → 9m.)

2 Select an option.

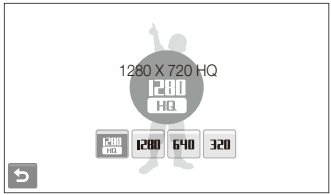


Option	Description
12m	**4000 X 3000**: Print on A1 paper.
10m	**3984 X 2656**: Print on A2 paper in wide ratio (3:2).
9m	**3840 X 2160**: Print on A2 paper in panorama ratio (16:9) or play back on an HDTV.
8m	**3264 X 2448**: Print on A3 paper.
5m	**2560 X 1920**: Print on A4 paper.
3m	**2048 X 1536**: Print on A5 paper.
2m	**1920 X 1080**: Print on A5 paper in panorama ratio (16:9) or play back on an HDTV.
1m	**1024 X 768**: Attach to an email.

When recording a video:

1 In the mode, select ▲ → .

2 Select an option.



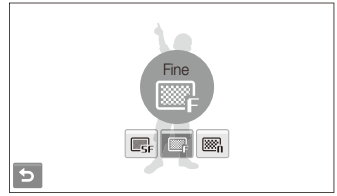
Option	Description
1280 HQ	**1280 X 720 HQ**: Play back high-quality files on an HDTV.
1280	**1280 X 720**: Play back on an HDTV.
640	**640 X 480**: Play back on a general TV.
320	**320 X 240**: Post on a web page.

Selecting image quality

Photos you take are compressed and saved in JPEG format. Higher quality images will result in larger sizes.

1 In Shooting mode, select ▲ → › → . (In some modes, select ▲ → .)

2 Select an option.



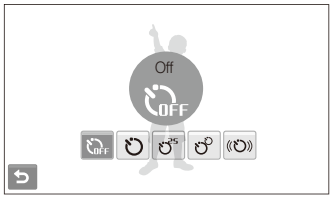
Option	Description
SF	**Super Fine**
F	**Fine**
N	**Normal**

Using the timer

Learn how to set the timer to delay shooting.

1 In Shooting mode, select .

2 Select an option.

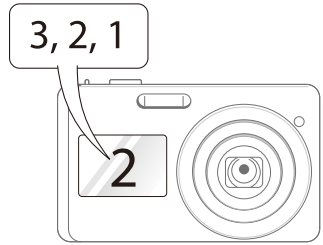


Option	Description
	Off: The timer is not active.
	10 Sec: Take a photo in 10 seconds.
	2 Sec: Take a photo in 2 seconds.
	Double: Take a photo in 10 seconds and take another in 2 seconds.
	Motion Timer: Detect your movement and then take a photo. (p. 44)

The options may differ depending on the shooting mode.

3 Press [**Shutter**] to start the timer.

- The AF-assist light/timer lamp blinks. The camera will automatically take a photo at the specified time.
- The front display will start the countdown a few seconds before shooting. Tap the front display to turn it on or off.



4 Half-press [**Shutter**] or select on the touch screen to take another photo.

- Select the timer icon or press [**Shutter**] to cancel the timer.
- Depending on the selected face defection option, the timer is not available or some timer options are not available.

Using the motion timer

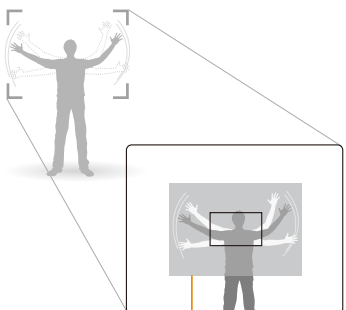
1 In Shooting mode, select → .

2 Press [**Shutter**].

3 Stand within 3 m from the camera within 6 seconds after pressing [**Shutter**].

4 Make a motion, such as waving your arms, to activate the timer.

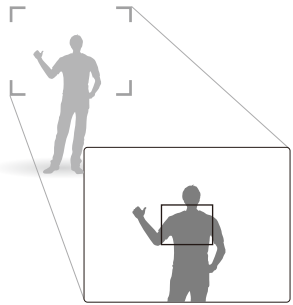
- The AF-assist light/timer lamp will start to blink rapidly when the camera detects you.



The detection range of the motion timer

5 Pose for your photo while the AF-assist light/timer lamp is blinking.

- The AF-assist light/timer lamp will stop blinking just before the camera automatically takes a photo.



The motion timer may not work when:

- you are more than 3 m away from the camera
- your movements are too subtle
- there is too much light or backlight

Shooting in the dark

Learn how to take photos at night or in low light conditions.

Preventing red-eye

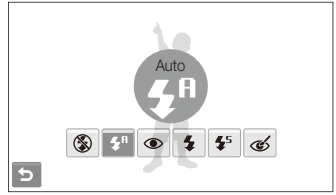
If the flash fires when you take a photo of a person in the dark, a red glow may appear in the eyes. To prevent this, select **Red-eye** or **Red-eye Fix**.

Using the flash

Use the flash when taking photos in the dark or when you need more light on your photos.

1 In Shooting mode, select .

2 Select an option.



Option	Description
	Off: • The flash will not fire. • Camera shake warning ( ) will be displayed when shooting in low light.
	Auto: The camera will select a proper flash setting for the detected scene in the mode.
	Auto: The flash fires automatically when the subject or background is dark.

Option	Description
	Red-eye*: • The flash fires when the subject or background is dark. • The camera reduces red-eyes.
	Fill in: • The flash always fires. • Light intensity is adjusted automatically.
	Slow Sync: • The flash fires and the shutter stays open longer. • Select this when you want to capture ambient light to reveal more details in the background. • Use a tripod to prevent your photos from blurring.
	Red-eye Fix*: • The flash fires when the subject or background is dark. • The camera corrects red-eyes through its advanced software analysis.

The options may differ depending on the shooting mode.
* There is an interval between two bursts of the flash. Do not move until the flash fires a second time.

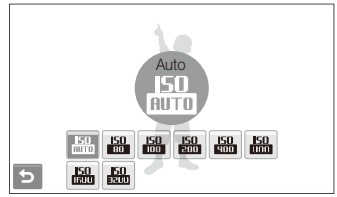
- Flash options are not available if you set burst options or select **Blink Detection**.
- Make sure that your subjects are within the recommended distance from the flash. (p. 102)
- If there is reflected light or much dust in the air, tiny spots may appear on your photo.

Adjusting the ISO speed

The ISO speed is the measure of a film's sensitivity to light as defined by the International Organisation for Standardisation (ISO). The higher ISO speed you select, the more sensitive to light your camera becomes. With a higher ISO speed, you can get a better photo without using the flash.

1 In Shooting mode, select ▲ → ISO AUTO.

2 Select an option.
- Select ISO AUTO to use an appropriate ISO speed based on the brightness of the subject and lighting.



The higher ISO speed you select, the more image noise you may get.

Changing the camera's focus

Learn how to adjust the camera's focus according to your subjects.

Using macro

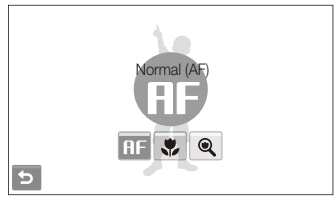
Use macro to take close-up photos of subjects, such as flowers or insects. Refer to macro options in "Using auto focus."

- Try to hold the camera very still to prevent blurry photos.
- Turn off the flash if the distance to the subject is less than 40 cm.

Using auto focus

To take sharp photos, select the appropriate focus according to your distance from the subject.

1. In Shooting mode, select **AF**.
2. Select an option.



Option	Description
AF	**Normal (AF)**: Focus on a subject farther than 80 cm.
	Auto Macro: Focus on a subject farther than 5 cm (farther than 50 cm when using zoom).
	Macro: Focus on a subject 5 - 80 cm (50 - 80 cm when using zoom).
	Super Macro: Focus on a subject between 3 to 8 cm (unavailable when using zoom).

The options may differ depending on the shooting mode.

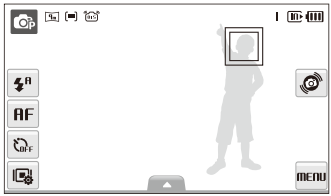
Using smart touch focus

Smart Touch AF allows you to track and auto focus on your subject, even when you are moving.

1 In Shooting mode, select ▲ → → .

2 Touch the subject you want to track in the touch area (indicated by a frame).

- A focus frame will appear on the subject and will follow the subject as you move the camera.



- The white frame means that your camera is tracking the subject.
- The green frame means that your subject is in focus when you half-press [**Shutter**].

- If you do not touch any area on the screen, the focus frame will appear in the centre of the screen.
- Tracking a subject may fail when:
  - the subject is too small or the subject moves
  - the subject is backlit or you are shooting in a dark place
  - colours or patterns on the subject and the background are the same
  - the camera shakes excessively

  In these cases, the focus frame will appear as a white single-line frame.
- If the camera fails to track the subject, you must reselect the subject to track.
- If the camera fails to fix the focus, the focus frame will change to a red single-line frame.
- If you use this function, you cannot set face detection and photo style options.

Using one touch shooting

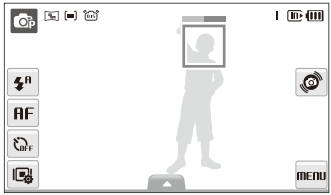
You can focus on your subject and take a photo with a touch of your finger.

1 In Shooting mode, select ▲ → ▣ → ☝.

2 Touch a subject to focus.

3 Touch and hold the subject to take the photo.

- Touch and hold until the level indicator fills up.



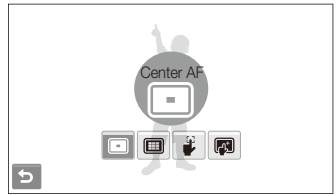
When you use face detection, you should touch and hold the image of detected face. If you touch and hold any other area, the frame to detect faces will change to a normal frame.

Adjusting the focus area

You can get clearer photos by selecting an appropriate focus area according to your subject's location in the scene.

1 In Shooting mode, select ▲ → ▣.

2 Select an option.



Option	Description
▣	**Center AF**: Focus on the centre (suitable when subjects are located in the centre).
▦	**Multi AF**: Focus on one or more of 9 possible areas.
☝	**One Touch Shooting**: Focus on the subject by touching the image on the screen. Touch and hold the subject to take the photo.
☺	**Smart Touch AF**: Focus on and track the subject that you touch on the screen. (p. 48)

The options may differ depending on the shooting mode.

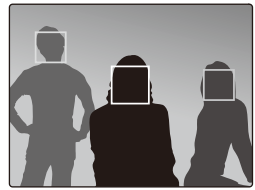
Using face detection

If you use face detection options, your camera can automatically detect a human face. When you focus on a human face, the camera adjusts the exposure automatically. Take photos quickly and easily by using **Blink Detection** to detect closed eyes or **Smile Shot** to capture a smiling face. You can also use **Smart Face Recognition** to register faces and prioritise the focus on them.

- In some scene modes, face detection is unavailable.
- Face detection may not be effective when:
  - the subject is far from the camera (The focus frame will appear orange for **Smile Shot** and **Blink Detection**)
  - it is too bright or too dark
  - the subject is not facing the camera
  - the subject is wearing sunglasses or a mask
  - the subject is in backlighting or the lighting condition is unstable
  - the subject's facial expression changes remarkably
- Face detection is not available when using a photo style.
- When you use the face detection option, the digital zoom will not work.
- Depending on the selected face defection option, the timer is not available or some timer options are not available.
- Depending on the selected face defection option, some burst options are not available.
- When you take photos of detected faces, they will be registered in the face list.
- You can view registered faces in order of priority in Playback mode. (p. 66) Even though faces are registered successfully, they may not be classified in Playback mode.
- The detected face in Shooting mode may not appear in the face list or Smart Album.

Detecting faces

Your camera automatically detects human faces (up to 10 human faces).



In Shooting mode, select ▲ → → . The nearest face appears in a white focus frame and the rest of the faces appear in gray focus frames.

- The closer you are to the subject, the quicker your camera will detect faces.
- If you want to focus faces in gray focus frames, touch them to focus.
- When you use the burst option, the detected faces may not be registered.

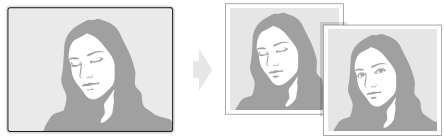
Taking a smile shot

The camera automatically releases the shutter when it detects a smiling face.

In Shooting mode, select ▲ → OFF → ☺. When your subject smiles broadly, your camera can detect the smile more easily.

Detecting eye blinking

If your camera detects closed eyes, it will automatically take 2 photos in succession.

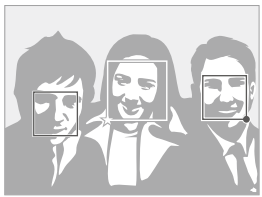


In Shooting mode, select ▲ → OFF → .

- Hold your camera still while "**Capturing**" is displayed on the screen.
- When blink detection fails, "**Picture taken with eyes closed.**" message appears. Take another photo.

Using smart face recognition

The camera automatically registers faces that you frequently photograph. This feature will automatically prioritise the focus on those faces and favourite faces. This feature is available only when you use a memory card.



In Shooting mode, select ▲ → → . The nearest face appears in a white focus frame and the rest of the faces appear in gray focus frames.

- : Indicate favourite faces
  (To register favourite faces, see page 53).
- : Indicate faces that the camera automatically registers.

- The camera may recognise and register faces incorrectly depending on lighting conditions, remarkable changes in the subject's pose or face, and whether or not the subject is wearing glasses.
- The camera can automatically register up to 14 faces. If the camera recognises a new face when there are 14 registered faces, it will replace the face in the lowest priority with the new one.
- The camera can detect up to 10 faces and register 5 faces in one scene.

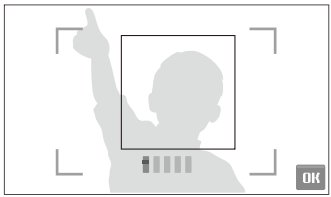
Registering faces as your favourites (My Star)

You can register your favourite faces to prioritise the focus and exposure on those faces. This feature is available only when you use a memory card.

1 In Shooting mode, select ▲ → → .

2 Align your subject and press [**Shutter**] to register the face.

- You can register up to 5 photos for one face. For better recognition of the face, take photos of the left, right, and front of the subject's face.



3 Select **OK** to register the face as one of your favourites.

4 Select ⮌ when the face list appears.

- Your favourite faces are indicated with a ★ on the face list.

- You can register up to 6 favourite faces.
- The flash option will be set to **Off**.
- If you register the same face twice, you can delete one of the faces in the face list.

Viewing your favourite faces

In Shooting mode, select ▲ → → .

- Select to change the ranking of your favourite faces.

See page 65 for more information about the face list.

Adjusting brightness and colour

Learn how to adjust the brightness and colour for better image quality.

Adjusting the exposure manually (EV)

Depending on the intensity of the ambient light, your photos may be too bright or dark. In these cases, you can adjust the exposure to get a better photo.

Darker (-)

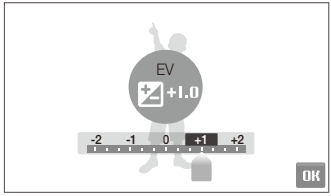
Neutral (0)

Brighter (+)

1 In Shooting mode, select ▲ → ±.

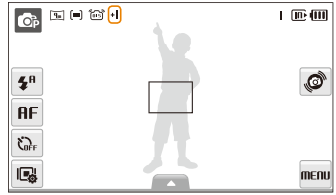
2 Select a value to adjust the exposure.

- +: brighter, -: darker



3 Select **OK**.

- The adjusted exposure value will appear as shown below.



- Once you adjust the exposure, the setting will remain the same. You may need to change the exposure value later to avoid overexposure or underexposure.
- If you cannot decide on an appropriate exposure, select **AEB** (Auto Exposure Bracket). The camera takes photos with different exposures: normal, underexposed, and overexposed. (p. 59)

Compensating for backlighting (ACB)

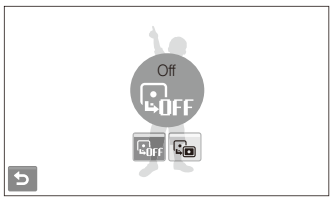
When the light source is behind your subject or there is high contrast between your subject and the background, your subject is likely to appear dark in the photo. In this case, set the Auto Contrast Balance (ACB) option.

Without ACB

With ACB

1 In Shooting mode, select ▲ → ❯ → OFF.

2 Select an option.



Option	Description
OFF	**Off**: ACB is off.
	On: ACB is on.

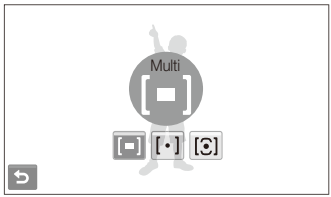
- The ACB feature is always on in the mode.
- This feature is not available when **Continuous**, **Motion Capture**, or **AEB** is in use.

Changing the metering option

The metering mode refers to the way in which a camera measures the quantity of light. The brightness and lighting of your photos will vary depending on the metering mode you select.

1 In Shooting mode, select ▲ → ❯ → [▪]. (In the 🎥 mode, select ▲ → [▪].)

2 Select an option.



Option	Description
[▪]	**Multi**: • Your camera divides the scene into several areas, and then measures the light intensity of each area. • Suitable for general photos.
[•]	**Spot**: • Your camera measures only the light intensity of the very centre of the frame. • If a subject is not in the centre of the scene, your photo may be improperly exposed. • Suitable for a subject with backlighting.
[⊙]	**Center-weighted**: • Your camera averages the meter reading of the entire frame with emphasis placed on the centre. • Suitable for photos with subjects in the centre of the frame.

Selecting a light source (White balance)

The colour of your photo depends on the type and quality of the light source. If you want the colour of your photo to be realistic, select an appropriate lighting condition to calibrate the white balance, such as Auto WB, Daylight, Cloudy, or Tungsten.

AWB Auto WB

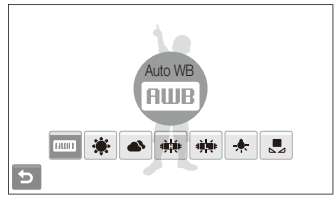
Daylight

Cloudy

Tungsten

1 In Shooting mode, select ▲ → AWB.

2 Select an option.



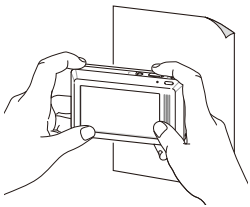
Icon	Description
AWB	**Auto WB**: Use automatic settings depending on the lighting conditions.
	Daylight: Select when taking outdoor photos on a sunny day.
	Cloudy: Select when taking outdoor photos on a cloudy day or in shadows.
	Fluorescent_H: Select when shooting under a daylight fluorescent or three-way fluorescent light.
	Fluorescent_L: Select when shooting under white fluorescent light.
	Tungsten: Select when taking indoor photos under incandescent bulbs or halogen lamps.
	Custom Set: Use your pre-defined settings. (p. 58)

Defining your own white balance

You can customise the white balance by taking photos of a white surface, such as a piece of paper. This will help you to match the colours in your photo with the actual scene according to your lighting condition.

1 In Shooting mode, select ▲ → AWB → .

2 Aim the lens at a piece of white paper.



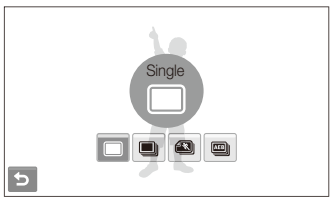
3 Press [**Shutter**].

Using burst modes SCENE

It can be difficult to take photos of fast-moving subjects or capture natural facial expressions and gestures of your subjects in photos. In these cases, select one of the burst modes.

1 In Shooting mode, select ▲ → ❯ → ▣.

2 Select an option.



Option	Description
▣	**Single**: Take a single photo.
▣	**Continuous**: • While you are pressing [**Shutter**], the camera takes photos continuously. • The maximum number of photos depends on the capacity of your memory card.
▣	**Motion Capture**: While you are pressing [**Shutter**], the camera takes VGA photos (6 photos per second; maximum of 30 photos).
▣	**AEB**: • Take 3 photos with different exposures: normal, underexposed, and overexposed. • Use a tripod to prevent blurry photos.

The options may differ depending on the shooting mode.

- You can use the flash and timer and ACB only when you select **Single**.
- When you select **Motion Capture**, the resolution will be set to VGA and the ISO speed will be set to **Auto**.
- Depending on the selected face defection option, some burst options are not available.

Improving your photos

Learn how to improve your photos by applying photo styles or colours, or make some adjustments.

Applying photo styles

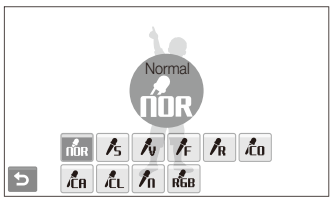
Apply different styles to your photos, such as Soft, Vivid, or Forest.

Soft Vivid Forest

1 In Shooting mode, select ▲ → ❯ (once or twice) → nOR.

2 Select an option.

- Select RGB to define your own RGB tone.



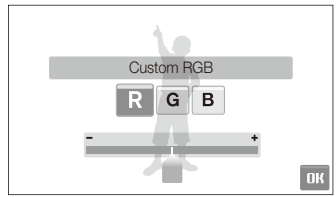
Depending on the selected photo style, you may not set the face detection and image adjustment options.

Defining your own RGB tone

1 In Shooting mode, select ▲ → ❯ (once or twice) → nOR → RGB.

2 Select a colour (R: Red, G: Green, B: Blue).

3 Adjust the amount of the selected colour.



4 Select OK.

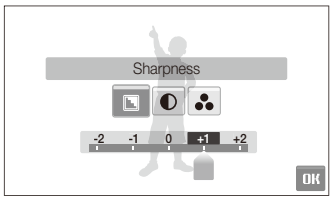
Adjusting your photos

Adjust the sharpness, saturation, and contrast of your photos.

1 In Shooting mode, select ▲ → ❯ (twice) → .

2 Select an adjustment option.
- : Sharpness
- : Contrast
- : Saturation

3 Select a value to adjust the selected item.



Sharpness option	Description
-	Soften the edges on your photos (suitable for editing the photos on your computer).
+	Sharpen the edges to improve the clarity of your photos. This may also increase the noise on your photos.

Contrast option	Description
-	Decrease the colour and brightness.
+	Increase the colour and brightness.

Saturation option	Description
-	Decrease the saturation.
+	Increase the saturation.

Select **0** if you do not want to apply any effects (suitable for printing).

Playback/Editing

Learn how to play back photos, videos, or voice memos and edit photos or videos. Also, learn how to connect your camera to your photo printer, TV, or HDTV.

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Resizing photos 74
Editing colour 75
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Playing back

Learn actions to play back photos, videos, or voice memos, and managing files.

Starting Playback mode

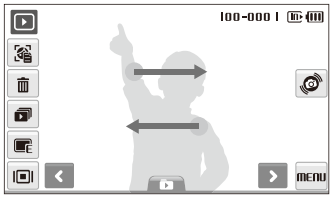
View photos or play videos and voice memos stored in your camera.

1 Press [▶].

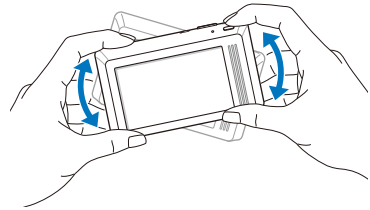
- The most recent file you have taken or recorded will be displayed.
- If the camera is off, it will turn on.

2 Draw a horizontal bar left or right to scroll through files.

- Select ❮ to view the previous file. Hold to view files quickly.
- Select ❯ to view the next file. Hold to view files quickly.



- You can also view files by tilting the camera.
  (Motion recognition may not work well if you hold the camera parallel to the ground.)



- To deactivate this function, select MENU → ❯ → **Gesture View** → **Off** in Playback mode.

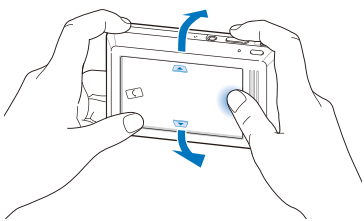
- If you want to view files stored in the internal memory, remove your memory card.
- The camera will not properly play back files that are too large or those taken with cameras from other manufacturers.

Selecting a menu using motion recognition

Your camera features a built-in motion sensor that allows you to quickly select a menu by tilting the camera.

In Playback mode, tilt the camera while touching and holding .

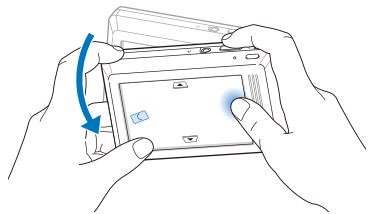
Set the current photo as your favourite photo*
(♥ will appear on the top of the file.)



Lock or unlock the current file
(🔑 will appear on the top of the file.)

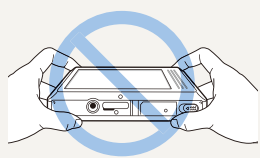
* You cannot set files as favourites for:

- videos or voice memos
- photos with errors or locked photos
- photos taken with cameras from other manufacturers
- photos taken using the motion capture option set
- photos that are too large for the available memory

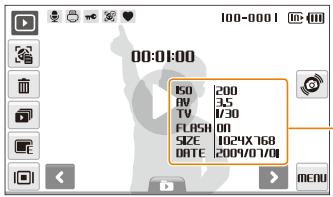


Start a slide show (p. 70)

Motion recognition may not work well if you hold the camera parallel to the ground, as shown below.



Display in Playback mode



Information

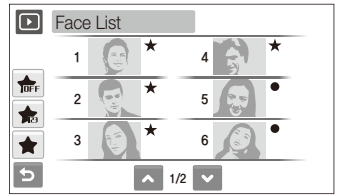
Icon	Description
	Photo includes a voice memo
	Video file
	Print order has been set (DPOF)
	Protected file
	Photo includes a registered face; Available only when you use a memory card
	Favourite file
100-0001	Folder name – File name
	Open the face list (p. 65); Available only when you use a memory card
	Delete files (p. 68)
	Play a slide show (p. 70)
	Edit photos (p. 74)

Icon	Description
	Select a display type (p. 24)
	Select a menu using motion recognition (p. 64)
MENU	Playback and settings menus
00:01:00	Playback time of videos or voice memos
	Play videos or voice memos (Video p. 71/Voice memo p. 72)

Ranking your favourite faces

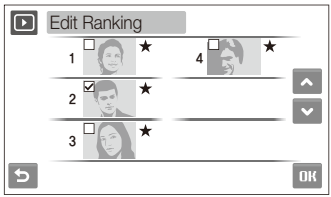
You can change the ranking of your favourite faces or delete them. This feature is available only when you use a memory card.

1 In Playback mode, select .



- Select to cancel your favourite faces.
- Select to view your favourite faces or view all faces.

2 Select ★ → a face.



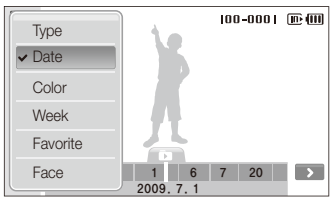
3 Select ▲ or ▼ to change the ranking of the face and select **OK**.

Viewing files by category in Smart Album

View and manage files by categories, such as date, file type, or week.

1 In Playback mode, select → **DATE** → a category.

- You can also access Smart Album by pushing [**Zoom**] left.



Option	Description
Type	View files by the file type.
Date	View files by the date they were saved.
Color	View files by the dominant colour of the image.
Week	View files by the weekday they were saved.
Favorite	View your favourite files.
Face	View files by recognised faces and favourite faces. (Up to 20 people)

It may take some time for the camera to open Smart Album or to change the category and reorganise files.

2 Select a date, file type, weekday, colour, or face.

- You can also touch and hold ◀ or ▶ to scroll through dates, file types, weekdays, colours, or faces.

3 Select ◀ or ▶ to scroll through files.

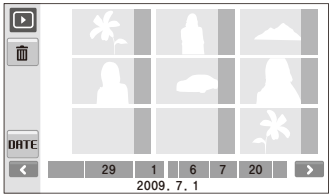
4 Select to return to the normal view.

Once you select a category and a menu that displays thumbnails (such as deleting multiple files or protecting selected files), the camera will display all files sorted by category or only those that match the category option.

Viewing files as thumbnails

Scan thumbnails of files.

In Playback mode, push [**Zoom**] left to display 9 or 16 thumbnails (push [**Zoom**] right to return to the previous mode).



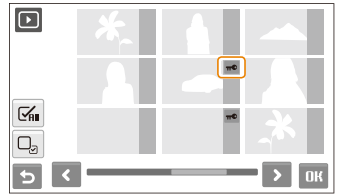
To	Do this
Scroll through files	Select ❮ or ❯.
View a file	Select a thumbnail.
Delete files	Select 🗑 or drag a file to 🗑. (p. 68)
Select a category	Select **DATE**.

Protecting files

Protect your files from accidental deletion.

To select and protect files,

1. In Playback mode, select **MENU**.
2. Select **Protect** → **Select**.
3. Select files you want to protect.
   - Select ☑All to select all files.
   - Select ☐ to cancel your selection.



4. Select **OK**.

To protect all files,

1 In Playback mode, select MENU.

2 Select **Protect** → **All** → **Lock**.

Deleting files

Delete single files or all files at once. You cannot delete protected files.

To delete a single file,

1 In Playback mode, select a file → 🗑.

2 Select **Yes** to delete the file.

To delete multiple files,

1 In Playback mode, select 🗑 → **Multiple Delete**.

2 Select files you want to delete.
- Select ☑ to select all files on the current screen.
- Select ☐ to cancel your selection.

3 Select OK → **Yes**.

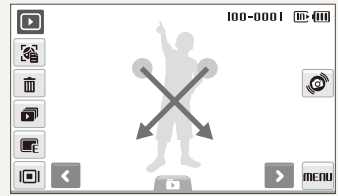
To delete all files,

1 In Playback mode, select MENU.

2 Select **Delete** → **All** → **Yes**.

Alternate way to delete a file

While viewing a file in Playback mode, draw an X on the screen.



Using the recycle bin

If you activate the recycle bin, files you delete will be sent to the recycle bin instead of being deleted permanently. This applies to single files or selected files only–if you choose to delete all files, those files will not be sent to the recycle bin.

To activate the recycle bin,

1 In Playback mode, select MENU.

2 Select **Recycle Bin** → **On**.

To restore files from the recycle bin,

1 In Playback mode, select MENU.

2 Select **Recycle Bin** → **Retrieve**.

- This function does not work for videos or voice memos.
- It may take longer to delete files when using the recycle bin function.
- If you format the internal memory, all files in the recycle folder will be deleted.
- The recycle bin will hold up to 10 MB of files. Once you exceed the 10 MB limit, the camera asks you whether to empty the recycle bin. Select **Yes** to empty the recycle bin or **No** to delete only the current file.

Copying files to the memory card

You can copy files from the internal memory to a memory card.

1 In Playback mode, select MENU.

2 Select ❯ → **Copy to Card**.

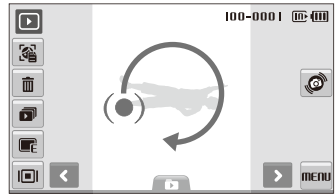
3 Select **Yes** to copy files.

Viewing photos

View a photo by changing the orientation by gesture or zooming in on part of a photo or view photos as a slide show.

Rotating a photo by gesture

While viewing a single file, drag your finger as shown below to rotate the photo 90°.



Viewing files by rotating the photo automatically

You can view vertical photos in landscape view without rotating your camera. Vertical photos will be automatically rotated to an upright position in landscape view once you set this option and take vertical photos.

To activate the automatic rotation,

1 In Shooting or Playback mode, select MENU → ⚙ → ❤.

2 Select **Auto Rotate** → **On**.

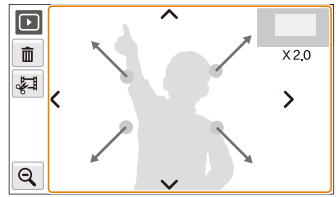
3 Select ⮌.

> This option may not be effective for:
> - photos taken when you hold the camera parallel to the ground
> - photos taken with the motion capture option set
> - videos

Enlarging a photo

In Playback mode, push [**Zoom**] right to enlarge a photo (push [**Zoom**] left to reduce a photo).

The enlarged area and zoom ratio are indicated on the top of the screen. The maximum zoom ratio may vary depending on the resolution. Select arrows or draw a diagonal to move the enlarged area.



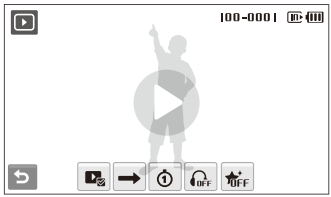
Icon	Description
🗑	Delete the file.
✂	Crop the enlarged photo (it will be saved as a new file).
🔍	Go back to the original view.

Starting a slide show

You can apply effects and audio to your slide show. This function does not work for videos or voice memos.

1 In Playback mode, select ▶.

2 Set a slide show effect.



Option	Description
	Images: Select photos (up to 2,000) for your slide show.
	Play Mode: Select whether or not to loop the slide show.
	Interval: Set the interval between photos. • This will be available when OFF is selected in the **Effect** menu. • When used with an effect option other than OFF, the interval will be set to 1 sec.
	Music: Select background audio.
	Effect: • Select a transition effect. • Select OFF for no effects.

3 Select ● to start the slide show.

- Touch on the screen (except for option icons) to pause the slide show.
- Select ⮌ to switch to Playback mode.

Playing a video

You can play a video, capture an image from a video, or crop a video.

1 In Playback mode, select a video → ●.

2 Use the following icons to control playback.

Icon	Description
◀◀	Scan backward.
❚❚/▶	Pause or resume playback.
■	Stop playback.
▶▶	Scan forward.
🔊	Adjust volume or mute sound.

Trimming a video during playback

1 Select ❙❙ at the point where you want the new video to begin and select ✂.

2 Select ▶ to resume playback.

3 Select ❙❙ at the point where you want the new video to end and select ✂.

4 Select **Yes**.

- The original video should be at least 10 seconds long.
- The edited video will be saved as a new file.

Capturing an image during playback

1 Select ❙❙ at the point where you want to save a still image.

2 Select 🖼.

3 Select **Yes**.

A captured image will have the same file size as the original video file and will be saved as a new file.

Playing a voice memo

Playing a voice memo

1 In Playback mode, select a voice memo → ●.

2 Use the following icons to control playback.

Icon	Description
◀◀	Scan backward.
❙❙/▶	Pause or resume playback.
■	Stop playback.
▶▶	Scan forward.
🔊	Adjust volume or mute sound.

Adding a voice memo to a photo

1 In Playback mode, select a photo → MENU.

2 Select **Voice memo** → **On**.

3 Press [**Shutter**] to record a short voice memo (10 seconds maximum).

- Press [**Shutter**] to stop recording a voice memo.

Playing a voice memo added to a photo

1 In Playback mode, select a photo that includes a voice memo → ▶.

2 Use the following icons to control playback.

Icon	Description
❚❚/▶	Pause or resume playback.
■	Stop playback.
🔊	Adjust volume or mute sound.

Editing a photo

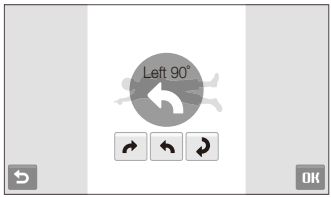
Perform photo editing tasks, such as rotating, resizing, eliminating red-eyes, and adjusting brightness, contrast, or saturation.

- Edited photos will be saved as new files.
- When you edit photos that are 8M or larger, they will be automatically resized to a lower resolution (except when rotating or resizing photos).

Rotating a photo

1 In Playback mode, select a photo → .

2 Select → an option.



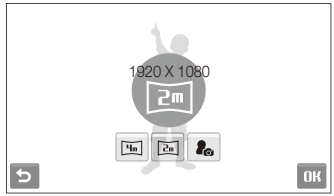
3 Select OK.

Resizing photos

1 In Playback mode, select a photo → .

2 Select → an option.

- Select to save the photo as a start image. (p. 90)



3 Select OK.

Available options differ depending on the size of the selected photo.

Editing colour

Apply a different colour tone to the photo, such as Soft, Vivid, or Forest.

Soft

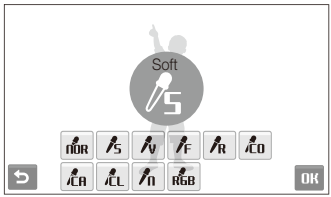
Vivid

Forest

1 In Playback mode, select a photo → .

2 Select → an option.

- Select RGB to define your own RGB tone.



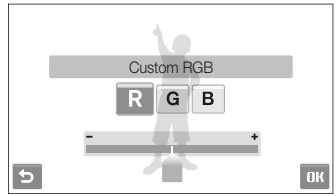
3 Select **OK**.

Defining your own RGB tone

1 In Playback mode, select a photo → → → RGB.

2 Select a colour (R: Red, G: Green, B: Blue).

3 Adjust the amount of the colour.



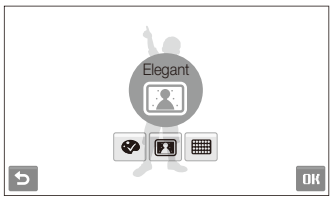
4 Select **OK**.

Applying a special effect

Apply special effects to the photo, such as colour filters or noise effects.

1 In Playback mode, select a photo → .

2 Select → an option.



Option	Description
	Colour Filter: Change background colours to black and white to make the main subject stand out.
	Elegant: Apply effects to the photo to make it brighter and softer.
	Add Noise: Add noise to the photo to give it an aged look.

3 Select **OK**.

Correcting exposure problems

Adjust ACB (Auto Contrast Balance), brightness, contrast, or saturation.

Adjusting an image

1 In Playback mode, select a photo → .

2 Select → an adjustment option.
- : Brightness
- : Contrast
- : Saturation

3 Select a value to adjust the selected item.
(-: less or +: more)

4 Select **OK**.

Adjusting ACB (Auto Contrast Balance)

1 In Playback mode, select a photo → .

2 Select → .

3 Select **OK**.

Editing photos of portraits

You can improve your photos by hiding facial imperfections and removing red-eye or you can apply effects for fun. These effects are only available for portraits.

Snow

Mosaic

Highlight

Hiding imperfections

1 In Playback mode, select a photo → .

2 Select → .

3 Select a level.
- As the number increases, more imperfections are hidden.

4 Select **OK**.

Removing red-eye

1 In Playback mode, select a photo → .

2 Select → .

3 Select **OK**.

Applying snow effect

1 In Playback mode, select a photo → .

2 Select → .
- Snow falls around the subjects.

3 Select ❙❙ to stop snowing and select **OK**.

Applying fun effects

1 In Playback mode, select a photo → .

2 Select → or .
- Your camera automatically detects faces.

Option	Description
	Mosaic: Apply mosaic effects to the detected faces.
	Highlight: Make the background blurry to draw attention to the main subject.

3 Select a detected face and select .

4 Select .

- If you select or effect, the camera will detect up to 20 faces.
- You can use the effect even if the photo does not include people.

Creating a print order (DPOF)

Select photos to be printed and set options, such as number of copies or paper size.

- The memory card can be taken to a print shop that supports DPOF (Digital Print Order Format) or you can print photos directly through a DPOF-compatible printer at home.
- Wide photos may print with the left and right edges cut off, so be aware of the dimensions of your photos.
- You cannot set the DPOF for the photos stored in the internal memory.

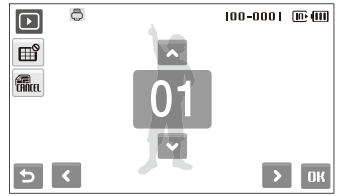
1 In Playback mode, select **MENU**.

2 Select ❯ → **DPOF** → **Select**.
- To print all files, select **All** and skip to step 5.

3 Select photos to print.
- Select to select all files.
- Select to cancel your selection.

4 Select **OK**.

5 Set DPOF options.



Option	Description
	Select whether to print the photos as thumbnails. (Select to print photos as thumbnails.)
CANCEL	Specify the size of the print.

6 Select ❮ or ❯ to set the number of copies.

7 Select **OK**.

If you specify the print size, you can print photos only with DPOF 1.1-compatible printers.

Viewing files on a TV

Play back photos or videos by connecting your camera to a TV using the provided A/V cable.

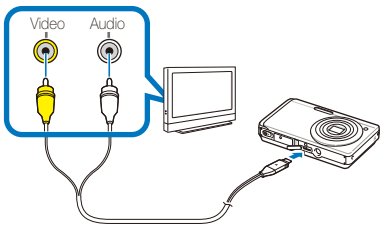
1 In Shooting or Playback mode, select MENU → ⚙.

2 Select ❯ (twice) → **Video Out**.

3 Select a video signal output according to your country or region. (p. 92)

4 Turn off your camera and TV.

5 Connect your camera to your TV using the A/V cable.



6 Turn on your TV and select the video output mode using the TV remote control.

7 Turn on your camera and press [▶].

8 View photos or play videos using the touch screen on your camera.

- The touch screen will function as the controller for the TV screen. Locate the option you want on the TV screen and touch where the option is located on the camera screen. When a pointer appears on the option on the TV screen, select OK on the camera screen.

- On some TVs, digital noise may occur or part of an image may not appear.
- Images may not appear centred on the TV screen depending on your TV settings.
- You can capture photos or videos while the camera is connected to a TV.

Transferring files to your computer (for Windows)

Transfer files to your computer using the built-in Intelli-studio program. You can also edit files or upload files to your favourite websites.

Requirements for Intelli-studio

Item	Requirements
CPU	Intel Pentium 4, 3.2 GHz or higher/AMD Athlon 64FX, 2.6 GHz or higher
RAM	Minimum 512 MB RAM (1 GB and above recommended)
OS	Windows XP SP2 or Vista
Hard disk capacity	250 MB or more (1 GB or more recommended)
Others	• CD-ROM drive • 64 MB or greater video card (nVIDIA Geforce 7600GT or higher/ATI X1600 series or higher recommended) • 1024 x 768 pixels, 16-bit colour display compatible monitor (1280 x 1024 pixels, 32-bit colour display recommended) • USB port, Microsoft DirectX 9.0c or later

- Intelli-studio may not perform correctly on some computers, even when the computer meets the requirements.
- If your computer does not meet the requirements, videos may not play correctly or it may take longer to edit videos.
- Install DirectX 9.0c or above before you use the program.
- You must use Windows 2000/XP/Vista or Mac OS 10.3 or later to connect the camera as a removable disk.

Using a self-assembled PC or a PC and OS that are not supported may void your warranty.

Transferring files using Intelli-studio

Intelli-studio will start automatically when you connect the camera to your computer with the USB cable.

The battery will be charged while the camera is connected to a computer with the USB cable.

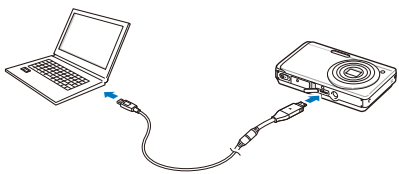
1 In Shooting or Playback mode, select MENU → ⚙.

2 Select ❯ (twice) → **PC Software** → **On**.

3 Turn off the camera.

4 Connect the camera to your computer with the USB cable.

You must plug the end of the cable with the indicator light (▲) into your camera. If the cable is reversed, it may damage your files. The manufacturer is not responsible for any loss of data.



5 Turn on the camera.
- The computer recognises the camera automatically.

6 Select a folder on your computer to save new files.
- If your camera has no new files, the pop-up window for saving new files will not appear.

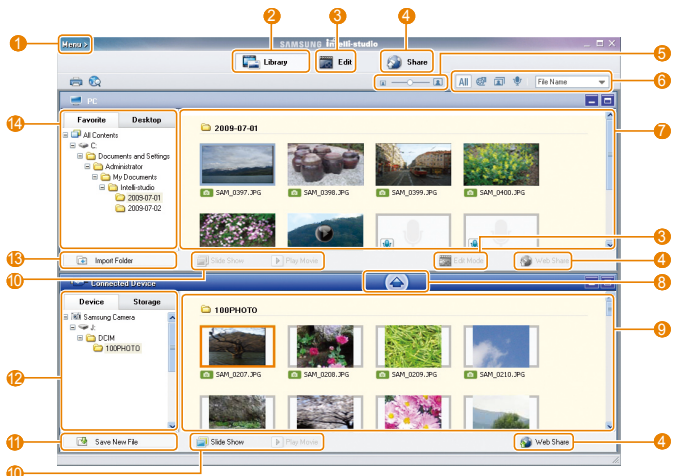
7 Select **Yes**.
- New files will be transferred to the computer.

For Windows Vista, select **Run iStudio.exe** from the AutoPlay window.

Using Intelli-studio

Intelli-studio is a built-in program that allows you to play back and edit files. You can also upload files to websites, such as Flickr or YouTube. For details, select **Menu** → **Help** in the program.

- If you install Intelli-studio on your computer, the program will launch more quickly. To install the program, select **Menu** → **Install Intelli-studio on PC**.
- You cannot edit files directly on the camera. Transfer files to a folder on your computer before editing.
- You cannot copy files in your computer to the camera.
- Intelli-studio supports the following formats:s
  - Videos: MP4 (Video: H.264, Audio: AAC), WMV (WMV 7/8/9)
  - Photos: JPG, GIF, BMP, PNG, TIFF



Icon	Description
❶	Open menus
❷	Display files in the selected folder
❸	Change to the Edit mode
❹	Change to the Sharing mode (You can send files by email or upload files to websites, such as Flickr or YouTube.)
❺	Enlarge or reduce the thumbnails in the list
❻	Select a file type or a category
❼	View files of the selected folder on your computer
❽	Copy files to the computer
❾	View files of the selected folder on the camera
❿	View photos in a slide show/Play videos
⓫	Copy new files to your computer
⓬	Browse folders in the connected device
⓭	Select folders of your computer
⓮	Browse folders in your computer

Transferring files by connecting the camera as a removable disk

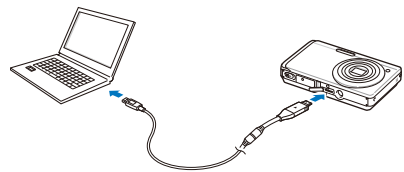
You can connect the camera to your computer as a removable disk.

1 In Shooting or Playback mode, select MENU → ⚙.

2 Select ❯ (twice) → **PC Software** → **Off**.

3 Connect the camera to your computer with the USB cable.

> ⚠ You must plug the end of the cable with the indicator light (▲) into your camera. If the cable is reversed, it may damage your files. The manufacturer is not responsible for any loss of data.



4 Turn on the camera.
- The computer recognises the camera automatically.

If the camera fails to connect, a pop-up window will appear. Select **Computer**.

5 On your computer, select **My computer** → **Removable Disk** → **DCIM** → **100PHOTO**.

6 Select the files you want and drag or save them to your computer.

Disconnecting the camera (for Windows XP)

The way to disconnect the USB cable for Windows 2000/Vista is similar.

1 If the status lamp on your camera is blinking, wait until it stops.

2 Click on the tool bar at the bottom right of your PC screen.

3 Click the pop-up message.

4 Remove the USB cable.

The camera may not be removed safely when Intelli-studio is running. End the program before disconnecting the camera.

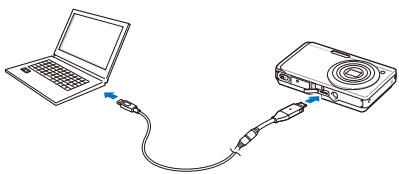
Transferring files to your computer (for Mac)

When you connect the camera to a Macintosh computer, the computer will recognise the device automatically. You can transfer files directly from the camera to the computer without installing any programs.

Mac OS 10.3 or later is supported.

1 Connect your camera to a Macintosh computer with the USB cable.

You must plug the end of the cable with the indicator light (▲) into your camera. If the cable is reversed, it may damage your files. The manufacturer is not responsible for any loss of data.



2 Turn on the camera.

- The computer recognises the camera automatically and a removable disk icon will be displayed.

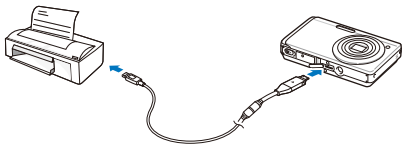
3 Double-click the removable disk icon.

4 Transfer photos or videos to the computer.

Printing photos with a photo printer (PictBridge)

Print photos with a PictBridge-compatible printer by connecting your camera directly to the printer.

1 With the printer on, connect your camera to the printer with the USB cable.



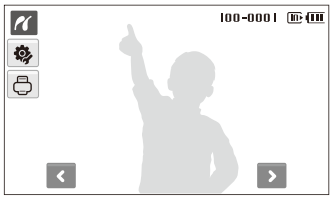
2 Turn on your camera.

- The printer recognises the camera automatically.

> - If the camera fails to connect, a pop-up window will appear. Select **Printer**.
> - If your printer has the mass storage feature, you must first set the USB mode to **Printer** in the settings menu. (p. 93)

3 Select to print.

- Select to set printing options. See "Configuring print settings" on page 87.



4 Select an option.

Option	Description
Current Photo	Print the currently selected photo. Skip to step 6.
Selected Photos	Print the photos you want.
All Photos	Print all photos. Skip to step 6.

5 Select ◀ or ▶ to scroll to a photo to print.

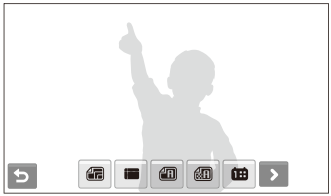
6 Select ▲ or ▼ to set the number of copies and select **OK**.

- If you selected to print the photos you want, repeat steps 5-6 for all photos to print.

7 Select **Yes** to confirm.

- Printing starts. Select **Cancel** to cancel printing.

Configuring print settings



Option	Description
	Size: Specify the size of the print.
	Layout: Create thumbnail prints.
	Type: Select the type of paper.
	Quality: Set the printing quality.
	Date: Set to print the date.
	File Name: Set to print the name of the file.
	Reset: Reset the print options.

Some options are not supported by some printers.

Appendixes

Refer to settings, error messages, specifications, and maintenance tips.

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Accessing the settings menu 89
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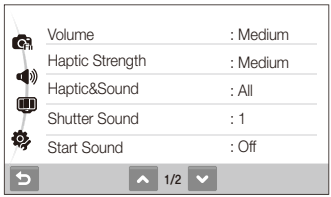
Settings menu

Learn about various options to configure your camera's settings.

Accessing the settings menu

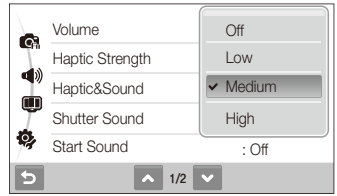
1 In Shooting or Playback mode, select MENU.

2 Select a menu.



Icon	Description
	Sound settings: Set various camera sounds and volume. (p. 90)
	Display settings: Customise the display settings, such as language and brightness. (p. 90)
	Camera settings: Change the settings for the camera system, such as memory format, default file name, and USB mode. (p. 91)

3 Select an option and save your settings.



4 Select ↩ to return to the previous screen.

Sound settings

* Default

Item	Description
Volume	Adjust the volume of any sound. (**Off**, **Low**, **Medium***, **High**)
Haptic Strength	Select a level of the vibration when you touch on the screen. (**Low**, **Medium***, **High**) In low temperatures, the vibration level may feel lower than your actual setting. It is not a malfunction.
Haptic&Sound	Select whether the camera will vibrate or sound when you touch on the screen. (**Off**, **Haptic**, **Sound**, **All***)
Shutter Sound	Select a sound to be emitted when pressing the shutter button. (**Off**, **1***, **2**, **3**)
Start Sound	Select a sound to be emitted when turning on your camera. (**Off***, **1**, **2**, **3**)
AF Sound	Set to emit a sound to be emitted when half-pressing the shutter button. (**Off**, **On***)

Display settings

* Default

Item	Description
Language	Select a language for the display text.
Function Description	Display a brief description of an option or menu. (**Off**, **On***)
Start Image	Set a start image to display when the camera turns on. • **Off***: Display no start image. • **Logo**: Display a default image stored in the internal memory. • **User Image** : Display the image you want. (p. 74) • Only one start image will be saved in the internal memory. • If you select a new photo as a start image or reset your camera, the current image will be deleted.
Grid Line	Select a type of the grid lines that help you to compose a scene. (**2 X 2***, **3 X 3**, **+**, **X**)

* Default

Item	Description
Display Brightness	Adjust the brightness of the screen. (**Auto***, **Dark**, **Normal**, **Bright**) **Normal** is fixed in Playback mode even if **Auto** is selected.
Quick View	Set the duration for reviewing a captured image before returning to Shooting mode. (**Off**, **0.5 sec***, **1 sec**, **3 sec**)
Power Save	If you perform no operations for 30 seconds, the camera automatically switches to Power save mode (press any button to deactivate the Power save mode). (**Off***, **On**)

Camera settings

* Default

Item	Description
Format	Format the internal memory and the memory card (all files-including the protected files-will be deleted). (**No**, **Yes**) If you use a memory card used with cameras from different manufacturers or a memory card reader, or one formatted on a computer, your camera may read the card incorrectly. Format the card before using it.
Reset	Reset menus and shooting options (date and time, language, and video output settings will not be reset). (**No**, **Yes**)
Date & Time	Set the date and time and select a date format. (**Off***, **yyyy/mm/dd**, **mm/dd/yyyy**, **dd/mm/yyyy**)
Time Zone	Select a region and set the daylight-saving time (DST).

* Default

Item	Description
File No.	Specify how to name files. • **Reset**: Set the file number to start from 0001 when inserting a new memory card, formatting a memory card, or deleting all files. • **Series***: Set the file number to follow the previous file number when inserting a new memory card, formatting a memory card, or deleting all files. • The default name of the first folder is 100PHOTO and the default name of the first file is SAM_0001. • The file number increases one by one from SAM_0001 to SAM_9999. • The folder number increases one by one from 100PHOTO to 999PHOTO. • The maximum number of files that can be stored in one folder is 9999. • The camera defines file names according to the Digital rule for Camera File system (DCF) standard. If you change the names of files intentionally, the camera may not play back the files.
Auto Rotate	Set the camera to automatically rotate vertical photos to view them in landscape view. (**Off**, **On***)

* Default

Item	Description
Imprint	Set whether to display the date and time on your photos when printing. (**Off***, **Date**, **Date & Time**) • The date and time will be displayed on the bottom-right corner of the photo in yellow. • The date and time may not be printed on some printer models. • If you select in the SCENE mode, the date and time will not be displayed.
Auto Power Off	Set the camera to automatically turn off when you are not using it. (**Off**, **1 min**, **3 min***, **5 min**, **10 min**) • Your settings will not change after replacing the battery. • The camera will not automatically turn off when: - it is connected to a computer or printer - you are playing a slide show or videos - you are recording a voice memo
AF Lamp	Set an assistant light to help you focus in dark places. (**Off**, **On***)

* Default

Item	Description
Video Out	Set the video signal output according to your region. • **NTSC***: USA, Canada, Japan, Korea, Taiwan, Mexico. • **PAL** (supports only BDGHI): Australia, Austria, Belgium, China, Denmark, England, Finland, Germany, Italy, Kuwait, Malaysia, Netherlands, New Zealand, Norway, Singapore, Spain, Sweden, Switzerland, Thailand
USB	Set the function to use via a USB connection with a computer or printer. • **Auto***: Set your camera to select a USB mode automatically. • **Computer**: Connect your camera to a computer for transferring files. • **Printer**: Connect your camera to a printer for printing files.
PC Software	Set Intelli-studio to start automatically when you connect your camera to your computer. (**Off**, **On***)
Calibration	Calibrate the screen so that your camera will properly recognise the input.

Error messages

When the following error messages appear, try these remedies.

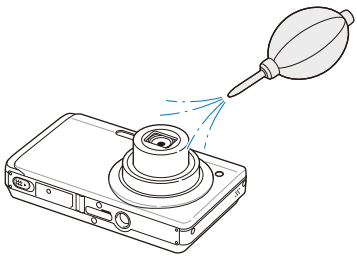
Error message	Suggested remedies
Card Error	• Turn off your camera and then turn it on again. • Remove your memory card and insert it again. • Format your memory card. (p. 91)
DCF Full Error	File names do not match the DCF standard. Transfer the files on the memory card to your computer and format the card. (p. 91)
File Error	Delete the damaged file or contact a service centre.
Low Battery	Insert a charged battery or recharge the battery.
Memory Full	Delete unnecessary files or insert a new memory card.
No Image File	Take photos or insert a memory card that has some photos.

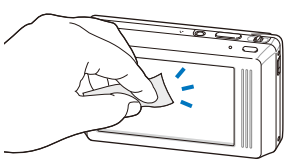
Camera maintenance

Cleaning your camera

Camera lens and touch screen

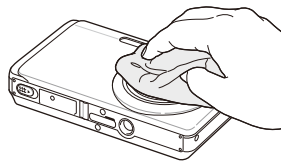
Use a blower brush to remove dust and wipe the lens gently with a soft cloth. If any dust remains, apply lens cleaning liquid to a piece of cleaning paper and wipe gently.





Camera body

Wipe gently with a soft, dry cloth.



- Never use benzene, thinners, or alcohol to clean the device. These solutions can damage the camera or cause it to malfunction.
- Do not press on the lens cover or use a blower brush on the lens cover.

About memory cards

Memory cards you can use

You can use microSD™ (Secure Digital) memory cards.

Memory card capacity

The memory capacity may differ depending on shooting scenes or shooting conditions. These capacities are based on a 1 GB microSD™ card:

	Size	Super Fine	Fine	Normal	60 FPS	30 FPS	15 FPS
Photos	12M	145	281	399	-	-	-
	10M	166	310	436	-	-	-
	9M	200	363	522	-	-	-
	8M	209	357	531	-	-	-
	5M	339	630	860	-	-	-
	3M	526	885	1,198	-	-	-
	2M	873	1,455	1,909	-	-	-
	1M	1,697	2,037	2,350	-	-	-
* Videos	1280 HQ	-	-	-	-	Approx. 13' 21"	Approx. 23' 20"
	1280	-	-	-	-	Approx. 15' 10"	Approx. 32' 11"
	640	-	-	-	-	Approx. 37' 25"	Approx. 66' 45"
	320	-	-	-	Approx. 78' 20"	Approx. 136' 47"	Approx. 235' 02"

* The recordable time may vary if you use the zoom.
Several videos were recorded in succession to determine the total recording time.

About the battery

Use only Samsung-approved batteries.

Battery specifications

Mode	SLB-07A
Type	Lithium-ion battery
Cell capacity	720 mAh
Voltage	3.7 V
Charging time (when the camera is switched off)	Approx. 150 min

Battery life

Average time / Number of photos		Test conditions (when the battery is fully charged)
Photos	Approx. 100 min/ Approx. 200 photos	This is measured under the following conditions: in the mode, 12M resolution, Fine quality, OIS on. 1. Set the flash option to **Fill in**, take a single shot, and zoom in or out. 2. Set the flash option to **Off**, take a single shot, and zoom in or out. 3. Perform steps 1 and 2 for 30 seconds and repeat for 5 minutes. Then turn off the camera for 1 minute. 4. Repeat steps 1 to 3.
Videos	Approx. 60 min	Record videos at 1280 x 720 HQ resolution and 30 fps.

- The figures above are measured by Samsung's standards and may differ depending on actual usage.
- Several videos were recorded in succession to determine the total recording time.

Notes about charging the battery

- If the indicator light is off, make sure that the battery is inserted correctly.
- Turn off your camera when charging.
- Turn on your camera after charging the battery for more than 10 minutes.
- Using the flash or recording videos depletes the battery quickly. Charge the battery until the indicator light turns green.
- If the indicator light blinks in orange or does not illuminate, reconnect the cable, or remove the battery and insert it again.
- If you charge the battery when the cable is overheated or the temperature is too high, the indicator light may turn orange. Charging will start when the battery cools down.

Notes about charging with a computer connected

- Use only the provided USB cable.
- The battery may not be charged when:
  - you use a USB hub
  - other USB devices are connected to your computer
  - you connect the cable to the port on the front side of your computer
  - the USB port of your computer does not support the power output standard (5 V, 500 mA)

Before contacting a service centre

If you are having trouble with your camera, try these troubleshooting procedures before contacting a service centre. If you have attempted the troubleshooting solution and are still having problems with your device, contact your local dealer or service centre.

Situation	Suggested remedies
Cannot turn on the camera	• Make sure that the battery is inserted. • Make sure that the battery is inserted correctly. • Charge the battery.
The power turns off suddenly	• Charge the battery. • Your camera may be in Power save mode. (p. 91) • The camera may turn off to prevent the memory card from being damaged due to an impact. Turn on your camera again.
The camera is losing battery power quickly	• The battery may lose power more quickly in low temperatures (below 0° C). Keep the battery warm by putting it into your pocket. • Using the flash or recording videos depletes the battery quickly. Recharge if needed. • Batteries are consumable parts that must be replaced over time. Get a new battery if the battery life is diminishing quickly.
Cannot take photos	• There is no space on the memory card. Delete unnecessary files or insert a new card. • Format the memory card. (p. 91) • The memory card is defective. Get a new memory card. • Make sure that the camera is switched on. • Charge the battery. • Make sure that the battery is inserted correctly.
The camera freezes	Remove the battery and insert it again.
The flash does not work	• The flash option may be set to **Off**. (p. 45) • You cannot use the flash in the , , or some SCENE modes.
The flash fires unexpectedly	The flash may fire due to static electricity. This is not a malfunction of the camera.
The date and time are incorrect	Set the date and time in the display settings menu.
The touch screen or buttons do not work	Remove the battery and insert it again.

Situation	Suggested remedies
The camera screen works poorly	If you use your camera at very low temperatures, it may cause the camera screen to malfunction or discolour. For better performance of your camera screen, use your camera in moderate temperatures.
The memory card has an error	The memory card has not been reset. Format the card. (p. 91)
Cannot play back files	If you change the name of a file, your camera may not play the file (the name of the file should meet the DCF standard). If you encounter this situation, play back files on your computer.
The photo is blurry	• Make sure that the focus option you set is suitable for close-up shots. (p. 47) • Make sure that the subject is within range of the flash. (p. 102) • Make sure that the lens is clean. If not, clean the lens. (p. 95)
The colours in the photo do not match the actual scene	An incorrect white balance can create unrealistic colour. Select the proper white balance option to suit the light source. (p. 57)

Situation	Suggested remedies
The photo is too bright	• Your photo is overexposed. Adjust the exposure value. (p. 54) • Turn off the flash. (p. 45)
The photo is too dark	Your photo is underexposed. • Adjust the exposure value. (p. 54) • Turn on the flash. (p. 45) • Adjust the ISO speed. (p. 46)
The TV does not display your photos	• Make sure that the camera is correctly connected to the external monitor with the A/V cable. • Make sure that your memory card contains photos.
Your computer does not recognise your camera	• Make sure that the USB cable is connected correctly. • Make sure that your camera is switched on. • Make sure that you are using a supported operating system.
Your computer disconnects the camera while transferring files	The file transmission may be interrupted by static electricity. Disconnect the USB cable and connect it again.

Situation	Suggested remedies
Your camera cannot play videos	• You can play videos only with the Intelli-studio program. Install the program on your computer. (p. 82) • Make sure that the USB cable is connected correctly.
Intelli-studio is not functioning properly	• End Intelli-studio and restart the program. • You cannot use Intelli-studio on Macintosh computers. • Make sure that the **PC Software** is set to **On** in the settings menu. (p. 93) • Depending on your computer's specification and environments, the program may not launch automatically. In this case, click **Start** → **My Computer** → **Intelli-studio** → **iStudio.exe** on your computer.

Camera specifications

Image sensor	
Type	1/2.33" (Approx. 7.79 mm) CCD
Effective pixels	Approx. 12.2 mega-pixels
Total pixels	Approx. 12.4 mega-pixels
Lens	
Focal length	Schneider-KREUZNACH lens f = 4.9 - 22.5 mm (35 mm film equivalent: 27 - 124.2 mm)
F-stop range	F3.5 (W) - F5.9 (T)
Digital zoom	• Still image mode: 1.0X - 5.0X • Play mode: 1.0X - 12.5X (depending on image size)
Display	
Type	TFT LCD
Feature	• Main Display: 3.0" (7.6 cm) Wide QVGA (230 K) Full Touch LCD • Front Display: 1.5" (3.8 cm) 61 K TFT LCD
Focusing	
Type	TTL auto focus (Multi AF, Center AF, Face Recognition AF, Face Detection AF, Smart Touch AF, One Touch Shooting)
Range	

	Wide (W)	Tele (T)
Normal	80 cm - infinity	
Macro	5 cm - 80 cm	50 cm - 80 cm
Auto Macro	5 cm - infinity	50 cm - infinity
Super Macro	3 cm - 8 cm	-

Shutter speed	
• Auto: 1/8 - 1/2,000 sec. • Program: 1 - 1/2,000 sec. • Night: 8 - 1/2,000 sec. • Fireworks: 2 sec.	
Exposure	
Control	Program AE
Metering	Multi, Spot, Center-weighted
Compensation	±2EV (1/3EV steps)
ISO equivalent	Auto, 80, 100, 200, 400, 800, 1600, 3200
Flash	
Mode	Off, Auto, Red-eye, Fill in, Slow Sync, Red-eye Fix
Range	• Wide: 0.2 m - 3.4 m (ISO Auto) • Tele: 0.5 m - 2.0 m (ISO Auto)
Recharging time	Approx. 4 sec.
Shake reduction	
DUAL IS [Optical Image Stabilisation (OIS) + Digital Image Stabilisation (DIS)]	
Effect	
Shooting mode	• Photo Style Selector : Normal, Soft, Vivid, Forest, Retro, Cool, Calm, Classic, Negative, Custom RGB • Image Adjust: Sharpness, Contrast, Saturation

White Balance	
Auto WB, Daylight, Cloudy, Fluorescent_H, Fluorescent_L, Tungsten, Custom Set	
Date Imprinting	
Date & Time, Date, Off	
Shooting	
Photos	• Modes: Smart Auto (Portrait, Night Portrait, Backlight Portrait, Backlight, Landscape, White, Motion, Tripod, Night, Macro, Macro Text, Blue Sky, Sunset Sky, Natural Green, Natural Portrait, Macro Colour), Auto, Program, DUAL IS, Movie, Scene (Night, Portrait, Children, Landscape, Text, Close Up, Sunset, Dawn, Backlight, Fireworks, Beach & Snow, Frame Guide, Beauty Shot) • Drive: Single, Continuous, Motion Capture, AEB • Timer: 10 Sec, 2 Sec, Double, Motion Timer
Videos	• Format: H.264 (Max recording time: 20 min) • Size: 1280 X 720 HQ (30 FPS, 15 FPS), 1280 X 720 (30 FPS, 15 FPS), 640 X 480 (30 FPS, 15 FPS), 320 X 240 (60 FPS, 30 FPS, 15 FPS) • Frame Rate: 60 FPS, 30 FPS, 15 FPS • Effect: Photo Style Selector , White Balance • Voice: Off, On (sound is muted when operating the zoom function) • Video editing (embedded): Pause during recording, Still image capture, Time trimming

Playback	
Type	Single image, Thumbnails, Multi slide show with music and effects, Movie clip, Smart Album* *Smart Album category: Type, Date, Color, Week, Face, Favorite
Edit	Resize, Rotate, Photo Style Selector , Image Adjust, Special Effect, Face Effect
Effect	• Photo Style Selector : Normal, Soft, Vivid, Forest, Retro, Cool, Calm, Classic, Negative, Custom RGB • Image Adjust: ACB, Brightness, Contrast, Saturation • Special Effect: Colour Filter, Elegant, Add Noise • Face Effect: Face Retouch, Red-eye Fix, Snow , Mosaic, Highlight
Voice recording	
• Voice Recording (Max. 10 hours) • Voice Memo in a photo (Max. 10 sec.)	
Storage	
Media	• Internal memory: Approx. 55 MB • External memory (Optional): microSD card (up to 4 GB guaranteed) Internal memory capacity may not match these specifications.

File format	• Photo: JPEG (DCF), EXIF 2.21, DPOF 1.1, PictBridge 1.0 • Video: H.264 (MPEG-4.AVC) • Audio: AAC
Image size	For 1GB microSD™

		Super Fine	Fine	Normal
12M	4000 X 3000	145	281	399
10M	3984 X 2656	166	310	436
9M	3840 X 2160	200	363	522
8M	3264 X 2448	209	357	531
5M	2560 X 1920	339	630	860
3M	2048 X 1536	526	885	1,198
2M	1920 X 1080	873	1,455	1,909
1M	1024 X 768	1,697	2,037	2,350

These figures are measured under Samsung's standard conditions and may vary depending on shooting conditions and camera settings.

Interface	
Digital output connector	USB 2.0
Audio output	Mono (Internal speaker), Mono (Microphone)
Video output	AV: NTSC, PAL (selectable)
DC power input connector	20 pin, 4.2 V

Power source	
Rechargeable battery	Lithium-ion battery (SLB-07A, 720 mAh)

The power source may differ depending on your region.

Dimensions (W x H x D)

99.8 x 59.8 x 19.1 mm

Weight

149 g (without battery and memory card)

Operating temperature

0 - 40˚C

Operating humidity

5 - 85 %

Software

Intelli-studio

Specifications are subject to change without prior notice.

Correct Disposal of This Product (Waste Electrical & Electronic Equipment)

(Applicable in the European Union and other European countries with separate collection systems)

This marking on the product, accessories or literature indicates that the product and its electronic accessories (e.g. charger, headset, USB cable) should not be disposed of with other household waste at the end of their working life. To prevent possible harm to the environment or human health from uncontrolled waste disposal, please separate these items from other types of waste and recycle them responsibly to promote the sustainable reuse of material resources. Household users should contact either the retailer where they purchased this product, or their local government office, for details of where and how they can take these items for environmentally safe recycling. Business users should contact their supplier and check the terms and conditions of the purchase contract. This product and its electronic accessories should not be mixed with other commercial wastes for disposal.

Samsung Eco-mark

It is Samsung's own symbol mark is used to effectively communicate Samsung's environmental friendly product activities to the consumers. The mark represents Samsung's continuous effort on development of environmental conscious products.

Correct disposal of batteries in this product

(Applicable in the European Union and other European countries with separate battery return systems)

This marking on the battery, manual or packaging indicates that the batteries in this product should not be disposed of with other household waste at the end of their working life. Where marked, the chemical symbols Hg, Cd or Pb indicate that the battery contains mercury, cadmium or lead above the reference levels in EC Directive 2006/66. If batteries are not properly disposed of, these substances can cause harm to human health or the environment.

To protect natural resources and to promote material reuse, please separate batteries from other types of waste and recycle them through your local, free battery return system.

The rechargeable battery incorporated in this product is not user replaceable. For information on its replacement, please contact your service provider.

This Class [B] digital apparatus complies with Canadian ICES-003.

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Please refer to the warranty that came with your product or visit our website http://www.samsungcamera.com/ for after-sales service or inquiries.